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VOLUME IV

**ADVANCED LIFE ANALYSIS
METHODS - Tabulated Test
Data for Attachment Lugs**



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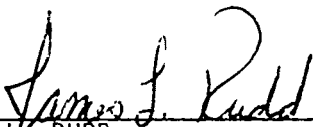
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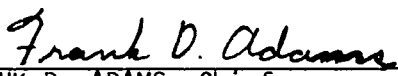
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<p>This report is Vol. IV of a 6-part final report on the work conducted under AFWAL Contract No. F33615-80-C-3211. Extensive experiments were conducted under this contract as a part of the assessment of damage tolerance of aircraft attachment lugs. Experimental results and the correlations with analytical predictions using the analysis methods developed under this contract were reported in Vol. III of the final report. In this volume, all the experimental test data generated are tabulated.</p> <p>The experiments were divided into two groups: Group I and Group II. Group I consists of only simple straight shank male lugs and Group II consists of lug configurations commonly used in design practices such as tapered, dogbone, clevis and real aircraft lugs. This volume contains the tabulation of raw residual strength and fatigue crack growth data for both groups of tests. This volume also contains the baseline material property data, crack initiation test results and details of different loading spectra used in testing.</p> <p><i>Originator Supplied Keywords include</i></p>												
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FOREWORD

This is Volume IV of six final report volumes on Contract F33615-80-C-3211, "Advanced Life Analysis Methods." The work reported herein was conducted jointly by Lockheed-Georgia Company and Lockheed-California Company under contract with Air Force Wright Aeronautical Laboratories, Wright-Patterson Air Force Base. J.L. Rudd is the Air Force project leader.

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LIST OF SYMBOLS

a	=	Crack Length Along Lug Hole Wall
a_B	=	Outside Surface Crack Length
B	=	Thickness of Lug
c	=	Front Surface Crack Length
c_B	=	Back Surface Crack Length
da/dN	=	Crack Growth Rate
F_{TU}, F_{tu}	=	Tensile Ultimate Strength
F_{TY}	=	Tensile Yield Strength
K_{app}	=	Apparent Fracture Toughness
K_c	=	Fracture Toughness
N	=	Number of Constant Amplitude Cycles or Number of Block Spectrum Passes or Number of Flight-by-Flight Spectrum Passes
N_B	=	Number of Cycles per Block (Pass) of Block Spectrum Loading
P	=	Maximum Pin Load
R	=	Stress Ratio
R_i	=	Inner Radius of Lug
r_i	=	Inner Radius of Bushing
R_o	=	Outer Radius of Lug
r_o	=	Outer Radius of Bushing
t_B	=	Thickness of Bushing = $r_o - r_i$
x, y	=	Coordinates Along and Perpendicular to Lug Axis, Respectively
ΔK	=	Stress Intensity Factor Range
δ_D	=	Diametrical Interference Level
σ_o, σ_{max}	=	Maximum Gross Stress for Constant Amplitude Loading = $P/(2R_o)$
σ_{omax}	=	Maximum Gross Stress for Block Spectrum Loading

SECTION I

INTRODUCTION

This report is the fourth volume of the final reports generated under Air Force Contract F33615-80-C-3211 entitled "Advanced Life Analysis Methods." The objective of this contract is to develop the design criteria and analytical methods necessary to ensure the damage tolerance of aircraft attachment lugs. In this contract, an extensive analytical and experimental investigation was conducted to characterize and predict fracture and growth behavior of cracks in attachment lugs. This volume contains the tabulation of raw residual strength and fatigue crack growth data generated during the efforts conducted under this contract. This volume also contains the baseline material property data, crack initiation test results and details of different loading spectra used in testing.

A total of six final report volumes has been generated under this contract as listed below:

- | | |
|------------|--|
| Volume I | Cracking Data Survey and NDI Assessment for Attachment Lugs. |
| Volume II | Crack Growth Analysis Methods for Attachment Lugs. |
| Volume III | Experimental Evaluation of Crack Growth Analysis Methods for Attachment Lugs. |
| Volume IV | Tabulated Test Data for Attachment Lugs. |
| Volume V | Executive Summary and Damage Tolerance Criteria Recommendations for Attachment Lugs. |
| Volume VI | User's Manual for "LUGRO" Computer Program to Predict Crack Growth in Attachment Lugs. |

In this program, experimental efforts have been divided into two main groups as:

- o Baseline Material Characterization and Group I Testing.
- o Group II Testing

Experimental data from the above two groups of tests are tabulated in this volume. Group I data are tabulated in Section II and Group II data are tabulated in Section III. Group I testing consists only of simple straight shank male lugs and Group II testing consists of different lug configurations commonly used in design practices such as tapered, dogbone, clevis and real aircraft lugs. Details of complex loading spectra used in testing are provided in the Appendix. Figures are included in the front of each section to provide the details of the lug geometries tested and the nomenclature used in presenting the tabulated data.

SECTION II

GROUP I TEST DATA TABULATION

Group I test results are tabulated in this section. The results are tabulated in the following order.

- o Baseline Material Characterization - Tension, Compression, Fracture Toughness and Crack Growth Rate Data (Table 1-1)
- o Fatigue Crack Initiation Tests (Table 1-8)
- o Baseline Residual Strength Tests (Table 1-12)
- o Baseline Constant Amplitude Crack Propagation Tests (Table 1-14)
- o Baseline Block Spectrum Crack Propagation Tests (Table 1-87)
- o Baseline Flight-by-Flight Spectrum Crack Propagation Tests (Table 1-124)
- o Variational Crack Propagation Tests (Table 1-161)

TABLE 1-1. MATERIAL CHARACTERIZATION TESTS

MATERIAL	TENSILE	COMPRESSION	K_c	da/dN	MICROSTRUCTURE
	T	T			
7075-T651 PLATE	3	3	3	6	1
4340 STEEL (180-200 KSI)	3	3	3	6	1
SPECIMEN CONFIGURATION FIGURE NO.	1-1 (a)	1-1 (b)	1-1 (c)	1-1 (d)	—

T = TRANSVERSE GRAIN

FOR K_c AND da/dN , FLAWS IN L-T DIRECTION

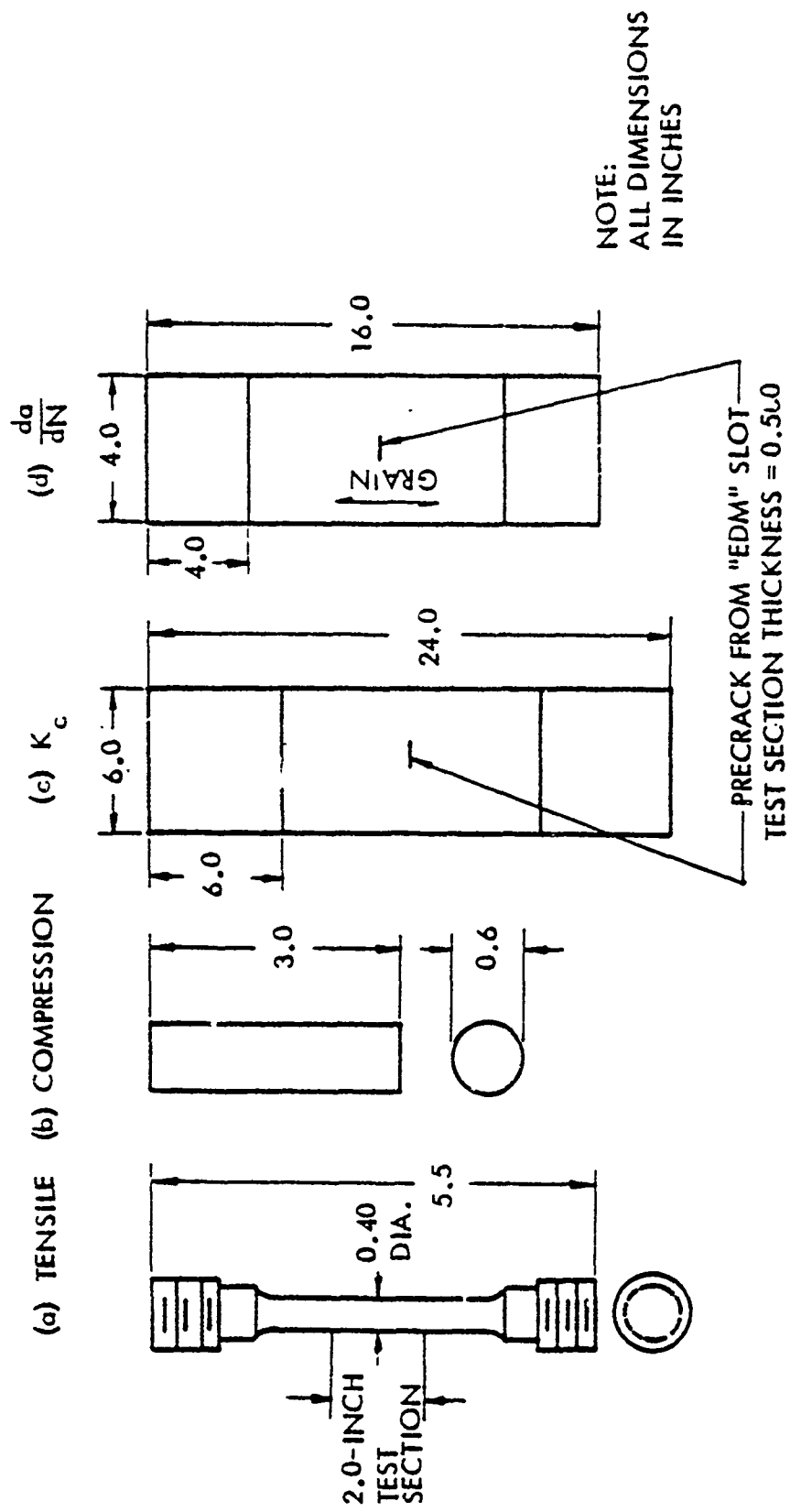


Figure 1-1. Material Characterization Test Specimens

TABLE 1-2. CHEMICAL COMPOSITION OF TEST MATERIALS

MATERIAL	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	P	S	Ni	Mo	Al
7075-T651 ALUMINUM ALLOY	0.07	0.25	1.38	0.04	2.46	0.19	5.60	0.02	-	-	-	-	REM
4340 STEEL H.T. 180-200 KSI	0.20	REM	-	0.79	-	0.90	-	-	0.019	0.003	1.78	0.26	-

MEASURED PERCENT VALUES

TABLE 1-3. MECHANICAL PROPERTIES OF MATERIALS

MATERIAL	F _{TU} (KSI)	F _{TY} (KSI)	F _{CY} (KSI)	K _{app} (KSI √IN)		K _c (KSI √IN)	
				THICKNESS (INCH)		THICKNESS (INCH)	
				0.5	0.25 (1)	0.5	0.25 (1)
7075-T651 ALUMINUM	75.1	74.9	75.6	60.9	78.5	72.4	88.9
4340 STEEL (H.T. 180-200 KSI)	194.0	179.7	188.0	224.7	249.5	250.5	284.0

(1) ADDITIONAL DATA GENERATED USING SPARE MATERIAL

TABLE 1-4. CRACK GROWTH RATE DATA
FOR 7075-T651 ALUMINUM, R=0.1

ΔK (KSI $\sqrt{\text{IN}}$)	da/dN (Microinch/Cycle)
4.0	0.145
5.0	0.578
6.0	2.050
8.0	7.500
10.0	12.900
12.0	18.200
15.0	28.300
20.0	58.900
25.0	134.000
30.0	353.000
40.0	2850.000
45.0	6520.000

TABLE 1-5. CRACK GROWTH RATE DATA
FOR 7075-T651 ALUMINUM, R=0.5

ΔK (KSI $\sqrt{\text{IN}}$)	da/dN (Microinch/Cycle)
1.5	0.0415
2.0	0.125
3.0	0.249
4.0	0.876
5.0	2.650
7.0	9.190
9.0	15.900
11.0	25.100
13.0	45.100
15.0	95.900
19.0	533.000
23.0	2080.000

TABLE 1-6. CRACK GROWTH RATE DATA
4340 STEEL (H.T. 180-200 KSI), R=0.1

ΔK (KSI $\sqrt{\text{IN}}$)	da/dN (Mi. roinch/Cycle)
6.0	0.0911
8.0	0.1920
12.0	0.7400
16.0	1.6600
20.0	2.9900
24.0	4.7700
28.0	6.9700
32.0	9.4800
38.0	13.5000
56.0	26.8000
74.0	50.0000
88.0	93.5000
98.0	159.0000

TABLE 1-7. CRACK GROWTH RATE DATA
4340 STEEL (H.T. 180-200 KSI), R=0.5

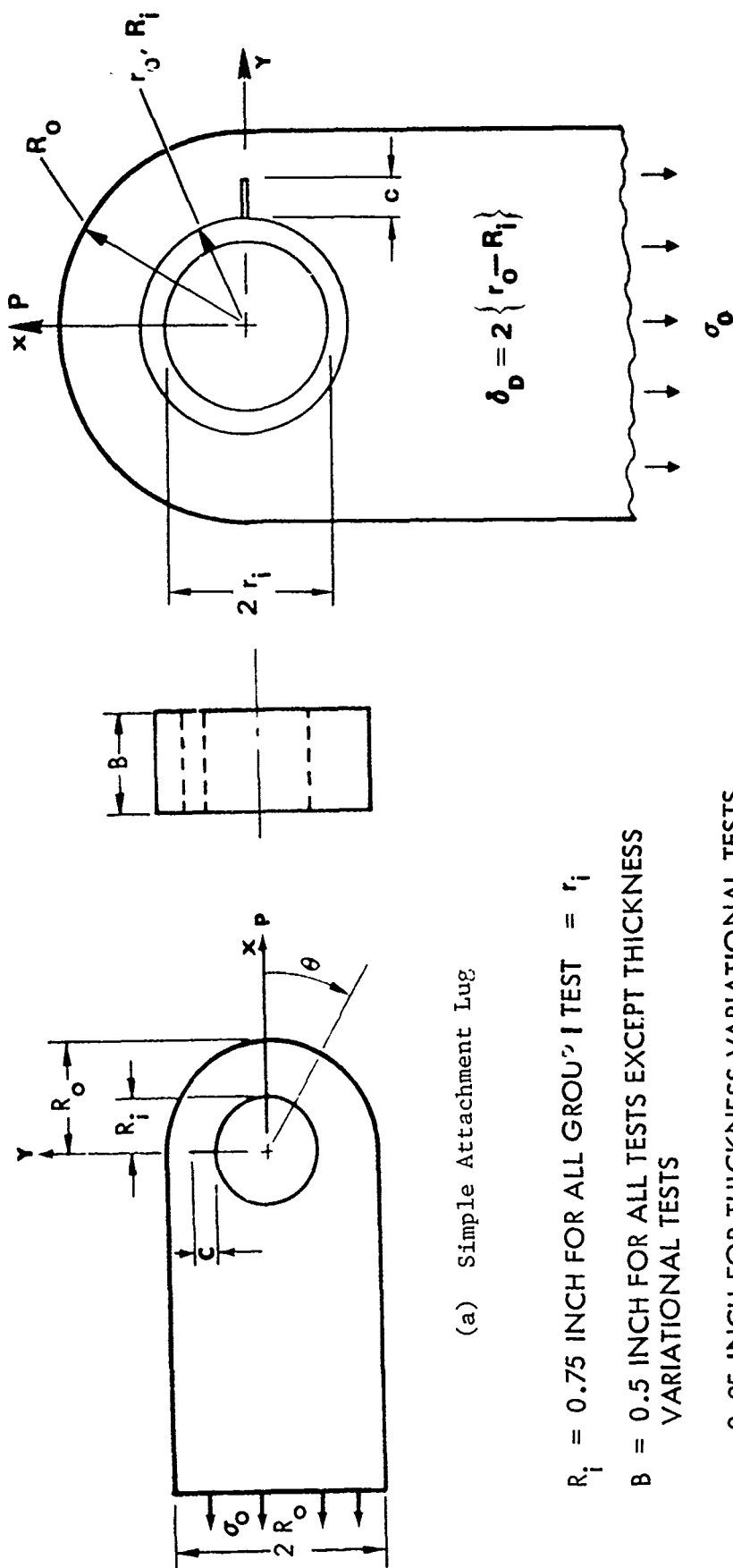
ΔK (KSI $\sqrt{\text{IN}}$)	da/dN (Microinch/Cycle)
4.0	0.0537
5.0	0.106
7.0	0.247
9.0	0.482
11.0	0.833
13.0	1.310
16.0	2.250
20.0	3.930
24.0	6.010
28.0	8.350
35.0	12.800
50.0	29.000
58.0	57.700

TABLE 1-8. CRACK INITIATION TESTS

MATERIAL	R_o/R_i	GROSS STRESS (KSI) $R = +0.1$	NO. OF TESTS ⁽¹⁾	TOTAL
7075-T651 ALUMINUM PLATE	1.50	6	2	8
		15	2	
	3.00	6	2	
		15	2	
4340 STEEL (H.T. 180-200 KSI)	1.50	14 ⁽²⁾	2	8
		35	2	
	3.00	14 ⁽²⁾	2	
		35	2	

(1) DUPLICATE TESTS FOR EACH TEST CONDITION

(2) REFER TO TABLES 1-9 AND 1-10 FOR ACTUAL TEST STRESSES



$R_i = 0.75$ INCH FOR ALL GROUP I TESTS $= r_i$

$B = 0.5$ INCH FOR ALL TESTS EXCEPT THICKNESS VARIATIONAL TESTS

$= 0.25$ INCH FOR THICKNESS VARIATIONAL TESTS

$t_B = 0.09$ INCH (BUSHING THICKNESS) FOR LUGS WITH BUSHING TESTS

Figure 1-2. Group I Testing Lug Geometries

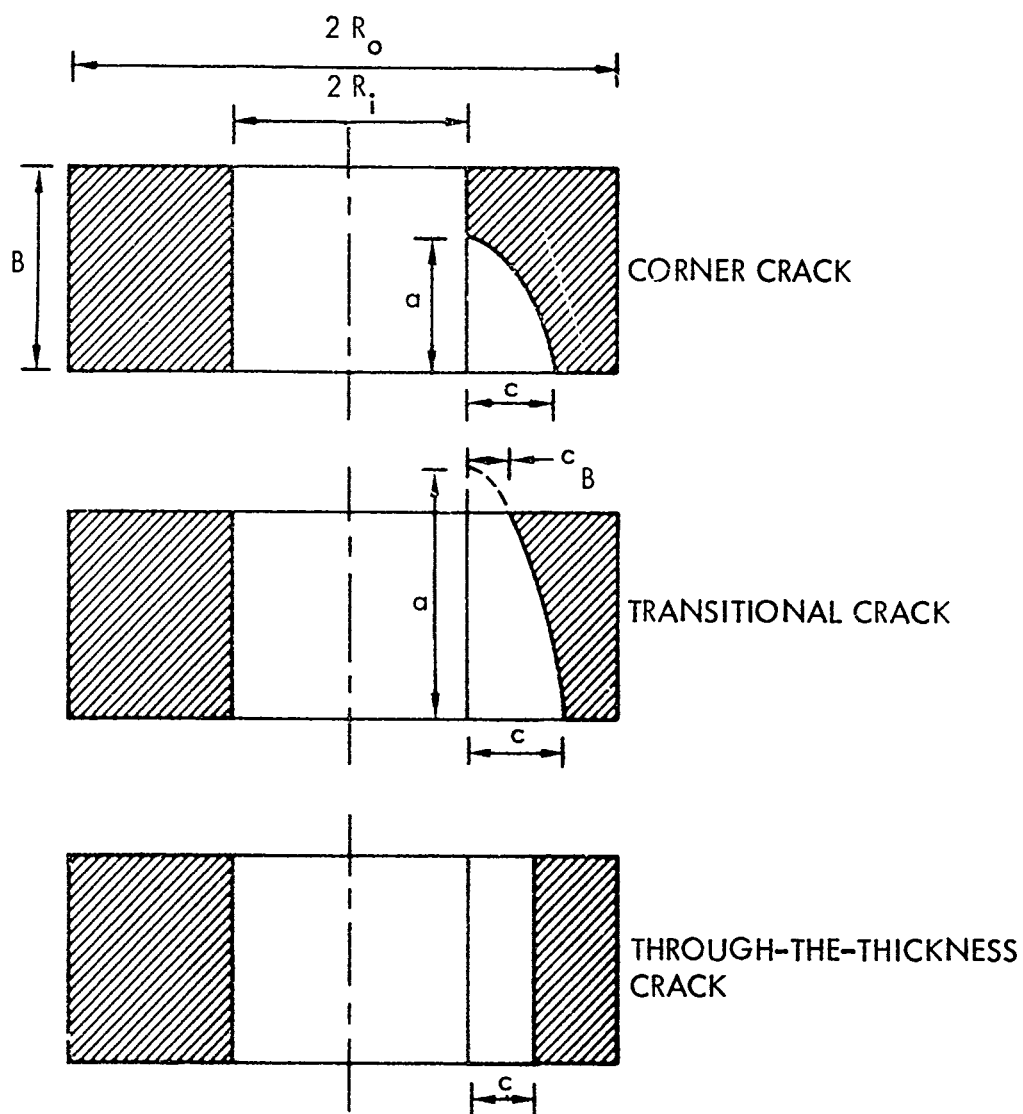


Figure 1-3. Definitions of Crack Lengths

TABLE 1-9. CRACK INITIATION TEST DATA

MATERIAL	SPECIMEN NO.	R_o/R_i	GROSS STRESS (KSI)	CYCLES TO FAILURE
7075-T651 ALUMINUM	ABLI 1 ABLI 2	3.00	6	131365 118983
	ABLI 3 ABLI 4	3.00	15	6124 6555
	ABLI 9 ABLI 10	1.50	6	64975 63590
	ABLI 11 ABLI 12	1.50	15	6147 6324
	ABLI 99 ABLI 100	2.25 ⁽¹⁾	6	102770 88210
4340 STEEL (H.T. 180-200 KSI)	SBLI 1 SBLI 2	3.00	24	64300(2) 83803
	SBLI 3 SBLI 4	3.0	35	15851 24621
	SBLI 9 SBLI 10	1.50	20 24	91069 42581(2)
	SBLI 11 SBLI 12	1.50	35	18177 12820

(1) ADDITIONAL TEST DATA USING SPARE SPECIMENS

(2) REFER TO TABLE 1-10 FOR FURTHER DETAILS ON LOADING HISTORY

TABLE 1-10. LOADING HISTORY OF STEEL SPECIMENS NOT RESULTING IN FAILURE

SPECIMEN NO. ⁽¹⁾	R_o/R_i	GROSS STRESS (KSI)	CYCLES APPLIED
SBLI-1	3	14	4,300,000
	3	16	2,450,000
	3	18	1,040,000
	3	20	93,300
SBLI-10	1.5	14	6,006,000

(1) SEE TABLE 1-9 FOR FAILURE DATA AND SPECIMEN DIMENSIONS.

TABLE 1-11. SCOPE OF GROUP I RESIDUAL STRENGTH AND CRACK PROPAGATION TESTS

TYPE OF TEST			R _o / R _i			B (INCH)		TYPE OF LOADING				TYPE OF FLAW		BUSHING		NO. OF TESTS*		
			1.5	2.25	3.0	0.25	0.50	STATIC	SPECTRUM		C.A. @ R =		CORNER	THRU	NO		YES	
									BLOCK	F-B-F	0.1	0.5						
BASELINE TESTS	STATIC RESIDUAL STRENGTH	X (8) ⁺				X (8)	X (8)					X (8)		X (8)		8**		
				X (8)		X (8)	X (8)						X (8)	X (8)		8**		
	PROPAGATION	C.A.	ALU	X (16)	X (16)	X (16)		X (48)				X (24)	X (24)	X (24)	X (24)	X (48)	48***	
			STE	X (8)	X (8)	X (8)		X (24)				X (12)	X (12)	X (12)	X (24)		24	
		BLOCK SPECTRUM	ALU	X (8)	X (8)	X (8)		X (24)		X (24)				X (12)	X (12)	X (24)		24***
			STE	X (4)	X (4)	X (4)		X (12)		X (12)				X (6)	X (6)	X (12)		12
		F-B-F SPECTRUM	STEEL	X (12)	X (12)	X (12)		X (36)			X (36)			X (18)	X (18)	X (36)		36++
	VARIATIONAL TESTS	0.25 IN. THICKNESS	ALU		X (4)		X (4)					X (4)		X (4)		X (4)	4***	
			STE		X (2)		X (2)					X (2)		X (2)		X (2)	2	
		BUSHING	ALU		X (4)			X (4)				X (4)			X (4)		X (4)	4***
			STE		X (2)			X (2)				X (2)			X (2)		X (2)	2
		STEEL	0.25 THICK		X (2)		X (2)				X (2)			X (2)		X (2)		2+++
			BUSHING		X (2)			X (2)			X (2)				X (2)		X (2)	2+++
TOTAL			56	64	56	8	168	16	36	40	48	36	88	88	168	8	176	

+ NUMBER IN THE PARENTHESIS REPRESENTS NUMBER OF TESTS UNDER PARTICULAR COLUMN

* ALL TESTS ARE DUPLICATED

** TESTS INCLUDE 2 CRACK LENGTHS AND 2 MATERIALS

*** TESTS INCLUDE 2 STRESS LEVELS

† TESTS INCLUDE 3 FLIGHT-BY-FLIGHT SPECTRA (1 CARGO, 1 SEVERE CARGO AND 1 FIGHTER)

‡ SEVERE CARGO SPECTRUM

TABLE 1-12. RESIDUAL STRENGTH TESTS

MATERIAL		R _o /R _i		TYPE OF FLAW		CRACK SIZE (INCH)		SPECIMEN ID
7075-T651 ALUMINUM	4340 STEEL (180-200 KSI)	1.5	3.0	CORNER	THRU	c	a	
X		X		X		0.190	0.240	ABLS13
						0.320	0.400	ABLS14
						0.340	0.390	ABLS15
						0.230	0.300	ABLS16
			X		X	0.408	-	ABLS81
						0.405	-	ABLS83
						0.772	-	ABLS80
						0.792	-	ABLS82
	X	X		X		0.200	0.305	SBLS13
						0.250	0.395	SBLS14
						0.200	0.295	SBLS15
						0.300	0.400	SBLS16
			X		X	0.391	-	SBLS60
						0.399	-	SBLS82
						0.765	-	SBLS57
						0.771	-	SBLS8

TABLE 1-13. RESIDUAL STRENGTH TEST DATA

MATERIAL	SPECIMEN ID	R_o/R_i		TYPE OF FLAW		CRACK SIZE (INCH)		GROSS FAILURE STRESS (KSI)
		1.5	3.0	CORNER	THRU	c	a	
7075-T651 ALUMINUM	ABLS13	X		X		0.190	0.240	21.17
	ABLS16					0.230	0.300	17.96
	ABLS15					0.340	0.390	12.50
	ABLS14					0.320	0.400	13.27
	ABLS83		X		X	0.405	-	22.96
	ABLS81					0.408	-	23.61
	ABLS80					0.772	-	18.27
	ABLS82					0.792	-	18.83
4340 STEEL (H.T. 180-200 KSI)	SBSL15	X		X		0.200	0.295	47.98
	SBSL13					0.200	0.305	41.40
	SBSL14					0.250	0.395	40.84
	SBSL16					0.300	0.400	29.32
	SBSL60		X		X	0.391	-	68.78
	SBSL82					0.399	-	69.83
	SBSL57					0.765	-	55.42
	SBSL8					0.771	-	54.91

TABLE 1-14. GROUP 1 BASELINE CONSTANT AMPLITUDE CRACK PROPAGATION TESTS

INITIAL FLAW TYPE	MATERIAL		SPECIMEN ID NO. PREFIX	σ_{omax} (KSI)	R =		R_o/R_i -			SPECIMEN ID NUMBER SUFFIXES	DATA IN TABLES
	THRU	CORNER	ALUM.	STEEL	0.1	0.5	1.50	2.25	3.00		
X			X				X			62 63	1-15 1-16
										46 93	1-17 1-18
										85 89	1-19 1-20
										64 68	1-21 1-22
										47 94	1-23 1-24
										84 91	1-25 1-26
		X		14	X		X	X	X	62 72	1-27 1-28
										91 92	1-29 1-30
										88 90	1-31 1-32
										63 71	1-33 1-34
										47 48	1-35 1-36
										83 89	1-37 1-38
		X		15	X		X	X	X	66 72	1-39 1-40
										48 92	1-41 1-42
										87 90	1-43 1-44
										65 110	1-45 1-46
										49 79	1-47 1-48
										60 86	1-49 1-50
	X		6		X		X	X	X	17 21	1-51 1-52
										30 36	1-53 1-54
										6 50	1-55 1-56
										18 22	1-57 1-58
										32 34	1-59 1-60
										5 54	1-61 1-62
	X		X	14	X		X	X	X	17 20	1-63 1-64
										30 32	1-65 1-66
										55 79	1-67 1-68
										18 19	1-69 1-70
										31 34	1-71 1-72
										5 80	1-73 1-74
	X		15		X		X	X	X	19 23	1-75 1-76
										31 33	1-77 1-78
										8 57	1-79 1-80
										20 71	1-81 1-82
										35 37	1-83 1-84
										55 58	1-85 1-86

TABLE 1-15. CRACK GROWTH DATA FOR SPECIMEN ABPLC62

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	1180	0.0373
3	2180	0.0477
4	3180	0.0615
5	3480	0.0658
6	4480	0.0804
7	5480	0.0971
8	6480	0.1136
9	7480	0.1392
10	8480	0.1644
11	9480	0.1946
12	9680	0.2000
13	10680	0.2524
14	10980	0.2843

TABLE 1-16. CRACK GROWTH DATA FOR SPECIMEN ABPLC63

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	1800	0.0309
3	6300	0.0526
4	8800	0.0727
5	10800	0.0915
6	12800	0.1190
7	13850	0.1336
8	15850	0.1847
9	17350	0.2563

TABLE 1-17. CRACK GROWTH DATA FOR SPECIMEN ABPLC46

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	3075	0.0473
3	4075	0.0582
4	5075	0.0716
5	6075	0.0874
6	7075	0.1023
7	8175	0.1187
8	9175	0.1362
9	10175	0.1590
10	11675	0.1941
11	13175	0.2261
12	14675	0.2603
13	16675	0.3110
14	18675	0.3665
15	20675	0.4141
16	22675	0.4765
17	24175	0.5374
18	25175	0.5780
19	26175	0.6255
20	27175	0.6777
21	27375	0.6881
22	28375	0.7858
23	28575	0.8354
24	28625	0.8596

TABLE 1-18. CRACK GROWTH DATA FOR SPECIMEN ABPLC93

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	1860	0.0359
3	2860	0.0436
4	3860	0.0599
5	4860	0.0760
6	6380	0.1005
7	7380	0.1197
8	8380	0.1461
9	9380	0.1866
10	10380	0.2201
11	11380	0.2580
12	12380	0.2894
13	13380	0.3231
14	14380	0.3520
15	15380	0.3890
16	16380	0.4404
17	17380	0.4826
18	18090	0.5126
19	19090	0.5495
20	20090	0.6014
21	21090	0.6503
22	22090	0.7224

TABLE 1-19. CRACK GROWTH DATA FOR SPECIMEN ABPLC85

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	5275	0.0689
3	6275	0.0835
4	7275	0.1051
5	8275	0.1288
6	8950	0.1447
7	9950	0.1727
8	10950	0.2027
9	11950	0.2371
10	12950	0.2672
11	13950	0.3014
12	14950	0.3306
13	15950	0.3634
14	16950	0.3944
15	17950	0.4192
16	19450	0.4706
17	20950	0.5176
18	22950	0.5877
19	24950	0.6441
20	26950	0.7136
21	27475	0.7318
22	30475	0.8458
23	33475	0.9796
24	34475	1.0343
25	35475	1.0971
26	36475	1.1669
27	36975	1.2060

TABLE 1-20. CRACK GROWTH DATA FOR SPECIMEN ABPLC89

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	700	0.0299
3	1700	0.0387
4	2700	0.0498
5	4700	0.0833
6	5200	0.0913
7	7200	0.1368
8	9200	0.1903
9	11200	0.2380
10	13200	0.2923
11	15200	0.3391
12	17200	0.3875
13	19200	0.4401
14	21200	0.4922
15	23200	0.5422
16	25200	0.5986
17	27200	0.6496
18	29200	0.7093
19	31200	0.7580
20	31600	0.7681
21	34600	0.8583
22	37600	0.9593
23	40600	1.0636
24	42600	1.1619

TABLE 1-21. CRACK GROWTH DATA FOR SPECIMEN ABPLC64

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	2800	0.0295
3	11800	0.0421
4	20800	0.0570
5	29800	0.0734
6	32300	0.0779
7	41300	0.1014
8	50300	0.1491
9	54300	0.1846
10	57300	0.2231
11	59300	0.2541
12	60775	0.2771
13	61775	0.3008

TABLE 1-22. CRACK GROWTH DATA FOR SPECIMEN ABPLC68

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	625	0.0265
3	10625	0.0673
4	15625	0.0863
5	20625	0.1083
6	25625	0.1290
7	28950	0.1428
8	33950	0.1684
9	38950	0.1976
10	43950	0.2343
11	45950	0.2546
12	46725	0.2624
13	48725	0.2868
14	49725	0.2987
15	50225	0.3064
16	50725	0.3138
17	51225	0.3224

TABLE 1-23. CRACK GROWTH DATA FOR SPECIMEN ABPLC47

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	9850	0.0575
3	11850	0.0681
4	13850	0.0800
5	15850	0.0926
6	17850	0.1095
7	19150	0.1204
8	21150	0.1370
9	25150	0.1741
10	29150	0.2173
11	32150	0.2440
12	35150	0.2755
13	38150	0.3166
14	41150	0.3445
15	44150	0.3768
16	47150	0.4153
17	49650	0.4429
18	52150	0.4743
19	54650	0.5047
20	57150	0.5416
21	59650	0.5767
22	60725	0.5917
23	63225	0.6323
24	65225	0.6685
25	67225	0.7121
26	69225	0.7878

TABLE 1-24. CRACK GROWTH DATA FOR SPECIMEN ABPLC94

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	17800	0.0668
3	19800	0.0746
4	22800	0.0906
5	25800	0.1139
6	28900	0.1379
7	32900	0.1762
8	36900	0.2159
9	40900	0.2604
10	44900	0.3024
11	49900	0.3560
12	54900	0.4113
13	59900	0.4713
14	64900	0.5402
15	69900	0.6130
16	72400	0.6493
17	75400	0.7157
18	77400	0.8047

TABLE 1-25. CRACK GROWTH DATA FOR SPECIMEN ABPLC84

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	4250	0.0483
3	6250	0.0659
4	8250	0.0867
5	10250	0.1112
6	12250	0.1340
7	13000	0.1424
8	17000	0.1779
9	21000	0.2237
10	25000	0.2634
11	29000	0.3050
12	33000	0.3457
13	37000	0.3858
14	41000	0.4253
15	45000	0.4648
16	49000	0.5023
17	53000	0.5402
18	57000	0.5816
19	61000	0.6198
20	65000	0.6597
21	69000	0.7001
22	70950	0.7202
23	76950	0.7741
24	84950	0.8611
25	92950	0.9546
26	100950	1.0667
27	104950	1.1303
28	107950	1.1977

TABLE 1-26. CRACK GROWTH DATA FOR SPECIMEN ABPLC91

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	6350	0.0570
3	8350	0.0739
4	10350	0.0972
5	12350	0.1197
6	14350	0.1454
7	15500	0.1602
8	18500	0.1947
9	22500	0.2430
10	26500	0.2910
11	30500	0.3436
12	34500	0.3929
13	38500	0.4530
14	42500	0.5065
15	46500	0.5653
16	50500	0.6178
17	54500	0.6766
18	60500	0.7387
19	64500	0.8000
20	65150	0.8098
21	67150	0.8781
22	71150	0.9493
23	75150	1.0379
24	79150	1.1456
25	81150	1.2252

TABLE 1-27. CRACK GROWTH DATA FOR SPECIMEN SBPLC62

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0257
2	1085	0.0320
3	2585	0.0469
4	3585	0.0574
5	4585	0.0715
6	5585	0.0832
7	6785	0.0996
8	7000	0.1064
9	8000	0.1203
10	10000	0.1554
11	12000	0.1942
12	14000	0.2427
13	15000	0.2731
14	15300	0.2859
15	15515	0.2951

TABLE 1-28. CRACK GROWTH DATA FOR SPECIMEN SBPLC72

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	1420	0.0357
3	3420	0.0586
4	3870	0.0637
5	5870	0.0921
6	7870	0.1250
7	9870	0.1597
8	11870	0.2178
9	12070	0.2235
10	13070	0.2603
11	13320	0.2869

TABLE 1-29. CRACK GROWTH DATA FOR SPECIMEN SBPLC91

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	7800	0.0677
3	9800	0.0874
4	10800	0.1006
5	11800	0.1117
6	12800	0.1253
7	13325	0.1294
8	15325	0.1538
9	18325	0.1945
10	21325	0.2326
11	24325	0.2737
12	27325	0.3160
13	30325	0.3577
14	33325	0.4038
15	36325	0.4503
16	39325	0.4944
17	42325	0.5462
18	45325	0.5971
19	48325	0.6524
20	51325	0.7072
21	54325	0.7756
22	54570	0.7812

TABLE 1-30. CRACK GROWTH DATA FOR SPECIMEN SBPLC92

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	1100	0.0310
3	3100	0.0459
4	4600	0.0583
5	6100	0.0754
6	7100	0.0880
7	8100	0.1001
8	9100	0.1118
9	10000	0.1222
10	11000	0.1347
11	12000	0.1517
12	14000	0.1794
13	16000	0.2097
14	18000	0.2383
15	20000	0.2693
16	23000	0.3181
17	26000	0.3624
18	29000	0.4188
19	32000	0.4651
20	34000	0.4965
21	36700	0.5387
22	38700	0.5653
23	42700	0.6395
24	44700	0.6791
25	46700	0.7313
26	48700	0.7876

TABLE 1-31. CRACK GROWTH DATA FOR SPECIMEN SBPLC88

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	650	0.0283
3	2650	0.0416
4	4650	0.0558
5	6650	0.0749
6	8650	0.0965
7	9600	0.1067
8	12600	0.1464
9	15600	0.1848
10	18600	0.2288
11	21600	0.2707
12	24600	0.3051
13	27600	0.3460
14	30600	0.3824
15	33600	0.4208
16	37600	0.4730
17	41600	0.5264
18	45600	0.5806
19	50600	0.6473
20	55600	0.7251
21	60600	0.7890
22	61550	0.8010
23	66550	0.8752
24	71550	0.9586
25	76550	1.0518
26	81550	1.1546
27	83550	1.2083

TABLE 1-32. CRACK GROWTH DATA FOR SPECIMEN SBPLC90

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	7800	0.0687
3	9800	0.0890
4	11300	0.1082
5	12300	0.1204
6	13300	0.1347
7	14300	0.1482
8	15500	0.1644
9	16500	0.1783
10	17500	0.1917
11	18500	0.2069
12	19500	0.2195
13	20500	0.2323
14	21500	0.2477
15	22500	0.2613
16	23500	0.2761
17	24500	0.2880
18	25500	0.3031
19	26500	0.3142
20	27500	0.3283
21	28500	0.3445
22	29500	0.3583
23	30500	0.3783
24	31500	0.3854
25	32500	0.3981
26	33500	0.4120
27	34500	0.4293
28	35500	0.4415
29	36500	0.4547
30	37500	0.4696
31	38075	0.4782
32	40075	0.5077
33	42075	0.5367
34	44075	0.5647
35	46075	0.5920
36	48075	0.6221
37	50075	0.6497
38	52075	0.6760
39	54075	0.7061
40	56075	0.7358
41	58075	0.7655

TABLE 1-33. CRACK GROWTH DATA FOR SPECIMEN SBPLC63

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	13250	0.0493
3	18250	0.0637
4	23250	0.0815
5	28250	0.1096
6	33250	0.1391
7	38250	0.1721
8	41310	0.1923
9	46310	0.2350
10	51310	0.2857

TABLE 1-34. CRACK GROWTH DATA FOR SPECIMEN SBPLC71

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	21500	0.0643
3	26500	0.0801
4	31500	0.0986
5	36500	0.1172
6	38900	0.1260
7	43900	0.1522
8	48900	0.1771
9	53900	0.2060
10	58900	0.2385
11	63900	0.2790
12	64650	0.2851
13	66150	0.3034

TABLE 1-35. CRACK GROWTH DATA FOR SPECIMEN SBPLC47

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	4050	0.0354
3	9050	0.0545
4	14050	0.0771
5	19050	0.1022
6	21600	0.1149
7	26600	0.1437
8	31600	0.1662
9	36600	0.1914
10	41600	0.2163
11	46600	0.2416
12	51600	0.2645
13	57600	0.2942
14	63600	0.3257
15	69600	0.3546
16	75600	0.3842
17	81600	0.4167
18	87600	0.4507
19	93600	0.4836
20	100600	0.5252
21	107600	0.5718
22	110000	0.5879
23	117000	0.6411
24	124000	0.7019
25	131000	0.7716
26	132000	0.7920
27	133500	0.8231

TABLE 1-36. CRACK GROWTH DATA FOR SPECIMEN SBPLC48

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	8900	0.0362
3	15900	0.0500
4	20900	0.0614
5	26900	0.0773
6	30900	0.0880
7	36900	0.1066
8	43900	0.1331
9	50900	0.1602
10	57900	0.1903
11	65900	0.2235
12	73900	0.2593
13	81900	0.2930
14	89900	0.3293
15	97900	0.3656
16	105900	0.4043
17	113900	0.4423
18	121900	0.4840
19	129900	0.5282
20	137900	0.5739
21	140400	0.5880
22	148400	0.6413
23	156400	0.7007
24	165400	0.7784
25	167400	0.8250
26	168150	0.8482

TABLE 1-37. CRACK GROWTH DATA FOR SPECIMEN SBPLC83

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	6000	0.0380
3	11000	0.0539
4	16000	0.0659
5	21000	0.0852
6	26000	0.1085
7	28400	0.1196
8	38400	0.1685
9	48400	0.2189
10	58400	0.2680
11	68400	0.3180
12	78400	0.3677
13	88400	0.4183
14	98400	0.4683
15	108400	0.5168
16	120400	0.5772
17	132400	0.6390
18	144400	0.7020
19	156400	0.7677
20	168400	0.8334
21	180400	0.9049
22	182200	0.9156
23	194200	0.9912
24	200200	1.0430
25	210200	1.1023
26	218200	1.1678

TABLE 1-38. CRACK GROWTH DATA FOR SPECIMEN SBPLC89

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	17600	0.0683
3	21600	0.0858
4	25600	0.1079
5	29600	0.1280
6	33600	0.1508
7	37600	0.1641
8	41600	0.1912
9	42900	0.2001
10	46900	0.2213
11	50900	0.2402
12	54900	0.2600
13	58900	0.2824
14	62900	0.2999
15	66900	0.3186
16	70900	0.3390
17	74900	0.3599
18	78900	0.3781
19	82900	0.3963
20	86900	0.4154
21	90900	0.4350
22	94900	0.4545
23	98900	0.4736
24	102900	0.4920
25	106900	0.5119
26	112900	0.5402
27	118900	0.5711
28	124900	0.5981
29	130900	0.6281
30	136900	0.6575
31	142900	0.6871
32	152900	0.7388
33	162900	0.7892
34	172900	0.8430
35	182900	0.8990
36	192900	0.9571
37	202900	1.0240
38	212900	1.0926
39	222900	1.1754
40	227900	1.2154

TABLE 1-39. CRACK GROWTH DATA FOR SPECIMEN ABPLC66

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	230	0.0457
3	300	0.0547
4	490	0.0654
5	640	0.0763
6	740	0.0870
7	890	0.1249
8	940	0.1384
9	990	0.1642
10	1020	0.1846

TABLE 1-40. CRACK GROWTH DATA FOR SPECIMEN ABPLC72

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	130	0.0280
3	330	0.0340
4	530	0.0423
5	790	0.0465
6	990	0.0520
7	1190	0.0773
8	1240	0.0898
9	1290	0.1133
10	1310	0.1284

TABLE 1-41. CRACK GROWTH DATA FOR SPECIMEN AL P1.C48

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	50	0.0265
3	350	0.0375
4	500	0.0536
5	575	0.0662
6	625	0.0814
7	665	0.0937
8	715	0.1132
9	765	0.1437
10	815	0.2186
11	840	0.2475
12	865	0.2984
13	890	0.3795
14	900	0.4047
15	910	0.4366
16	920	0.4665
17	930	0.5086
18	935	0.5269
19	945	0.5614

TABLE 1-42. CRACK GROWTH DATA FOR SPECIMEN ABPLC92

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	115	0.0365
3	215	0.0508
4	315	0.0643
5	465	0.0865
6	545	0.0980
7	645	0.1336
8	745	0.2318
9	795	0.3400
10	815	0.4081
11	825	0.4414
12	835	0.4954
13	840	0.5174
14	845	0.5493
15	850	0.6176

TABLE 1-43. CRACK GROWTH DATA FOR SPECIMEN ABPLC87

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	90	0.0343
3	215	0.0492
4	315	0.0807
5	365	0.1048
6	410	0.1253
7	460	0.2173
8	485	0.2691
9	510	0.3205
10	535	0.3734
11	560	0.4251
12	585	0.4813
13	605	0.5324
14	625	0.5791
15	645	0.6240
16	665	0.6910
17	685	0.7440
18	705	0.8012
19	725	0.8606

TABLE 1-44. CRACK GROWTH DATA FOR SPECIMEN ABPLC90

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	110	0.0369
3	210	0.0542
4	310	0.0842
5	360	0.1004
6	405	0.1144
7	455	0.1543
8	505	0.2194
9	555	0.3400
10	580	0.3971
11	605	0.4463
12	630	0.4842
13	655	0.5482
14	680	0.5983
15	705	0.6742
16	715	0.6985
17	740	0.8072
18	755	0.8739
19	770	0.9598
20	780	1.0243

TABLE 1-45. CRACK GROWTH DATA FOR SPECIMEN ABPLC65

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	300	0.0273
3	1300	0.0583
4	1800	0.0830
5	2300	0.0935
6	3100	0.1102

TABLE 1-46. CRACK GROWTH DATA FOR SPECIMEN ABPLC110

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	400	0.0358
3	700	0.0466
4	900	0.0583
5	1100	0.0691
6	1200	0.0808
7	1300	0.0930

TABLE 1-47. CRACK GROWTH DATA FOR SPECIMEN ABPLC49

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	90	0.0284
3	490	0.0499
4	690	0.0718
5	740	0.0987
6	840	0.1426
7	980	0.1588
8	1080	0.1942
9	1180	0.2699
10	1230	0.3047
11	1280	0.3332
12	1330	0.3790
13	1380	0.4448

TABLE 1-48. CRACK GROWTH DATA FOR SPECIMEN ABPLC79

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	90	0.0306
3	290	0.0487
4	490	0.0659
5	690	0.0944
6	775	0.1065
7	975	0.1514
8	1125	0.2058
9	1225	0.2538
10	1325	0.2963
11	1425	0.3591
12	1475	0.3880
13	1525	0.4240
14	1575	0.4686
15	1625	0.5265
16	1650	0.5539

TABLE 1-49. CRACK GROWTH DATA FOR SPECIMEN ABPLC60

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	285	0.1008
3	385	0.1638
4	435	0.2010
5	485	0.2456
6	535	0.2831
7	555	0.2997
8	605	0.3224
9	655	0.3584
10	705	0.3993
11	755	0.4507
12	805	0.4986
13	855	0.5568
14	905	0.6070
15	955	0.6679
16	1005	0.7384
17	1025	0.7632
18	1050	0.7874
19	1075	0.8342
20	1100	0.8734
21	1125	0.9208
22	1150	1.0122

TABLE 1-50. CRACK GROWTH DATA FOR SPECIMEN ABPLC86

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	225	0.0340
3	425	0.0502
4	625	0.1107
5	675	0.1493
6	700	0.1673
7	800	0.2355
8	900	0.3181
9	950	0.3742
10	1000	0.4169
11	1050	0.4628
12	1100	0.5274
13	1150	0.5814
14	1200	0.6463
15	1250	0.7079
16	1300	0.7781
17	1350	0.8690
18	1380	0.9547

TABLE 1-51. CRACK GROWTH DATA FOR SPECIMEN ABPLC17 *

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	800	0.0298	-	0.000	-
3	2800	0.0412	-	0.000	-
4	3025	0.0425	-	0.000	-
5	4625	0.0522	-	0.000	-
6	6225	0.0632	-	0.000	-
7	7725	0.0731	-	0.000	-
8	9225	0.0842	-	0.000	-
9	9450	0.0858	-	0.000	-
10	10950	0.0976	-	0.000	-
11	12650	0.1085	-	0.000	-
12	14050	0.1201	-	0.000	-
13	15450	0.1317	-	0.000	-
14	15900	0.1353	-	0.000	-
15	17300	0.1484	-	0.000	-
16	18500	0.1616	-	0.000	-
17	19500	0.1749	-	0.000	-
18	20400	0.1862	-	0.000	-
19	20600	0.1888	-	0.000	-
20	21500	0.2007	-	0.000	-
21	22600	0.2114	-	0.000	-
22	23500	0.2258	-	0.000	-
23	24200	0.2398	-	0.000	-
24	24450	0.2445	-	0.000	-
25	25350	0.2584	-	0.000	-
26	25950	0.2696	-	0.000	-
27	26450	0.2824	-	0.000	-
28	26850	0.2919	-	0.000	-
29	27050	0.2965	-	0.000	-
30	27450	0.3094	-	0.000	-
31	27750	0.3198	-	0.000	-
32	28050	0.3296	-	0.000	-
33	28350	0.3415	-	0.000	-
34	28600	0.3553	-	0.000	-

* MARKERS NOT VISIBLE

TABLE 1-52. CRACK GROWTH DATA FOR SPECIMEN ABPLC21

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	200	0.0259	-	0.000	-
3	2200	0.0363	-	0.000	-
4	4300	0.0468	-	0.000	-
5	6000	0.0581	0.061	0.000	1.050
6	6900	0.0640	-	0.000	-
7	8800	0.0747	-	0.000	-
8	10300	0.0864	-	0.000	-
9	11700	0.0965	-	0.000	-
10	13100	0.1076	0.128	0.000	1.190
11	14200	0.1161	-	0.000	-
12	15600	0.1274	-	0.000	-
13	16800	0.1406	-	0.000	-
14	18000	0.1513	-	0.000	-
15	19200	0.1642	0.195	0.000	1.188
16	19900	0.1720	-	0.000	-
17	20900	0.1847	-	0.000	-
18	21700	0.1972	-	0.000	-
19	22300	0.2073	-	0.000	-
20	22900	0.2174	0.250	0.000	1.150
21	23300	0.2238	-	0.000	-
22	24100	0.2358	-	0.000	-
23	24700	0.2476	-	0.000	-
24	25200	0.2592	-	0.000	-
25	25700	0.2668	0.300	0.000	1.124
26	26100	0.2725	-	0.000	-
27	26700	0.2875	-	0.000	-
28	27100	0.2999	-	0.000	-
29	27600	0.3129	-	0.000	-
30	28100	0.3251	0.370	0.000	1.138
31	28500	0.3352	-	0.000	-
32	28900	0.3514	-	0.000	-
33	29000	0.3640	-	0.000	-

TABLE 1-53. CRACK GROWTH DATA FOR SPECIMEN ABPLC30

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	3200	0.0369	-	0.000	-
3	6700	0.0483	-	0.000	-
4	9700	0.0604	0.065	0.000	1.076
5	10700	0.0646	-	0.000	-
6	13700	0.0819	-	0.000	-
7	16200	0.0921	-	0.000	-
8	18700	0.1043	-	0.000	-
9	21200	0.1141	0.115	0.000	1.008
10	23600	0.1235	-	0.000	-
11	26600	0.1356	-	0.000	-
12	29100	0.1507	-	0.000	-
13	30600	0.1651	-	0.000	-
14	32000	0.1756	0.177	0.000	1.008
15	32700	0.1812	-	0.000	-
16	34500	0.1931	-	0.000	-
17	36100	0.2075	-	0.000	-
18	37300	0.2186	-	0.000	-
19	38700	0.2316	0.307	0.000	1.326
20	40300	0.2463	-	0.000	-
21	42000	0.2572	-	0.000	-
22	43400	0.2730	-	0.000	-
23	44500	0.2829	-	0.000	-
24	45500	0.2977	0.386	0.000	1.297
25	45800	0.3017	-	0.000	-
26	46800	0.3164	-	0.000	-
27	47900	0.3270	-	0.000	-
28	48900	0.3450	-	0.000	-
29	49700	0.3554	0.448	0.000	1.261
30	50000	0.3538	-	0.000	-
31	51000	0.3722	-	0.000	-
32	52000	0.3865	-	0.000	-
33	53000	0.4007	-	0.000	-
34	54000	0.4154	0.485	0.000	1.168
35	54400	0.4215	-	-	-
36	55400	0.4356	-	-	-
37	56400	0.4549	-	-	-
38	57400	0.4708	-	-	-
39	58400	0.4925	-	-	-
40	59400	0.5167	-	-	-
41	60400	0.5428	-	-	-
42	61400	0.5670	-	-	-
43	62400	0.5970	-	-	-
44	63400	0.6354	-	-	-
45	64400	0.6946	-	-	-
46	65100	0.7372	-	-	-
47	65500	0.7906	-	-	-
48	65700	0.8230	-	-	-
49	65800	0.8588	-	-	-

TABLE 1-54. CRACK GROWTH DATA FOR SPECIMEN ABPLC36

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	5700	0.0488	-	0.000	-
3	7000	0.0617	-	0.000	-
4	9200	0.0722	-	0.000	-
5	10600	0.0842	0.121	0.000	1.437
6	11500	0.0918	-	0.000	-
7	12900	0.1037	-	0.000	-
8	14000	0.1178	-	0.000	-
9	15400	0.1294	-	0.000	-
10	16400	0.1415	0.202	0.000	1.428
11	17100	0.1502	-	0.000	-
12	18100	0.1608	-	0.000	-
13	19100	0.1738	-	0.000	-
14	19800	0.1864	-	0.000	-
15	20500	0.1977	0.275	0.000	1.391
16	20900	0.2039	-	0.000	-
17	21800	0.2142	-	0.000	-
18	22600	0.2275	-	0.000	-
19	23200	0.2394	-	0.000	-
20	23800	0.2497	0.335	0.000	1.342
21	24150	0.2557	-	0.000	-
22	24850	0.2716	-	0.000	-
23	25350	0.2820	-	0.000	-
24	26050	0.2938	-	0.000	-
25	26650	0.3046	0.403	0.000	1.323
26	27100	0.3150	-	0.000	-
27	27700	0.3262	-	0.000	-
28	28300	0.3366	-	0.000	-
29	28800	0.3467	-	0.000	-
30	29400	0.3608	(0.501)	0.013	(1.387)
31	29800	0.3700	-	-	-
32	30500	0.3804	-	-	-
33	31100	0.3931	-	-	-
34	31700	0.4085	-	-	-
35	32200	0.4203	(0.591)	0.224	(1.406)
36	32850	0.4361	-	-	-
37	34350	0.4645	-	-	-
38	35850	0.5031	-	-	-
39	37350	0.5428	-	-	-
40	38850	0.6050	-	-	-
41	39850	0.6403	-	-	-
42	40850	0.6972	-	-	-
43	41350	0.7222	-	-	-
44	41850	0.7583	-	-	-
45	42150	0.7837	-	-	-
46	42450	0.8340	-	-	-

TABLE 1-55. CRACK GROWTH DATA FOR SPECIMEN ABPLC6

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	2150	0.0355	-	0.000	-
3	4150	0.0474	-	0.000	-
4	5850	0.0578	0.088	0.000	1.522
5	7550	0.0682	-	0.000	-
6	9250	0.0803	-	0.000	-
7	10850	0.0930	-	0.000	-
8	12350	0.1056	-	0.000	-
9	13550	0.1178	0.138	0.000	1.171
10	14250	0.1250	-	0.000	-
11	15450	0.1379	-	0.000	-
12	16650	0.1484	-	0.000	-
13	17650	0.1587	-	0.000	-
14	18650	0.1697	0.184	0.000	1.084
15	19650	0.1801	-	0.000	-
16	20650	0.1903	-	0.000	-
17	21650	0.2035	-	0.000	-
18	22650	0.2176	-	0.000	-
19	23650	0.2284	0.273	0.000	1.195
20	24450	0.2367	-	0.000	-
21	25550	0.2477	-	0.000	-
22	26550	0.2612	-	0.000	-
23	27550	0.2769	-	0.000	-
24	28550	0.2875	0.359	0.000	1.249
25	29350	0.2965	-	0.000	-
26	30350	0.3084	-	0.000	-
27	31350	0.3237	-	0.000	-
28	32150	0.3340	-	0.000	-
29	32950	0.3481	0.446	0.000	1.281
30	33450	0.3560	-	-	-
31	34250	0.3686	-	-	-
32	35050	0.3833	-	-	-
33	35650	0.3944	-	-	-
34	36350	0.4062	(0.523)	0.120	(1.288)
35	36950	0.4174	-	-	-
36	38450	0.4383	-	-	-
37	39950	0.4621	-	-	-
38	41450	0.4925	-	-	-
39	42950	0.5213	-	-	-
40	44450	0.5549	-	-	-
41	45950	0.5866	-	-	-
42	47450	0.6239	-	-	-
43	48750	0.6579	-	-	-
44	49750	0.6822	-	-	-
45	50750	0.7056	-	-	-
46	51750	0.7330	-	-	-
47	52750	0.7619	-	-	-
48	53750	0.7927	-	-	-
49	54750	0.8190	-	-	-

TABLE 1-55. CRACK GROWTH DATA FOR SPECIMEN ABPLC6 (CON'T)

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	^c B (IN.)	a/c
50	55750	0.8574	-	-	-
51	56750	0.8902	-	-	-
52	57750	0.9276	-	-	-
53	58550	0.9541	-	-	-
54	59350	0.9893	-	-	-
55	59950	1.0113	-	-	-
56	60550	1.0372	-	-	-
57	61150	1.0686	-	-	-
58	61750	1.0985	-	-	-
59	62350	1.1252	-	-	-
60	62950	1.1741	-	-	-
61	63250	1.1926	-	-	-
62	63550	1.2165	-	-	-

TABLE 1-56. CRACK GROWTH DATA FOR SPECIMEN ABPLC56

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	3650	0.0391	-	0.000	-
3	6050	0.0524	-	0.000	-
4	8050	0.0639	-	0.000	-
5	9550	0.0741	0.086	0.000	1.211
6	10500	0.0804	-	0.000	-
7	11800	0.0909	-	0.000	-
8	13000	0.1013	-	0.000	-
9	14200	0.1129	-	0.000	-
10	15300	0.1243	0.159	0.000	1.279
11	16050	0.1324	-	0.000	-
12	17250	0.1426	-	0.000	-
13	18350	0.1558	-	0.000	-
14	19450	0.1677	-	0.000	-
15	20450	0.1796	-	0.000	-
16	21350	0.1913	0.259	0.000	1.354
17	22300	0.2034	-	0.000	-
18	23300	0.2170	-	0.000	-
19	24200	0.2281	-	0.000	-
20	25000	0.2410	-	0.000	-
21	25800	0.2515	0.340	0.000	1.352
22	26500	0.2604	-	0.000	-
23	27400	0.2712	-	0.000	-
24	28200	0.2864	-	0.000	-
25	28900	0.2980	-	0.000	-
26	29500	0.3108	0.407	0.000	1.310
27	29900	0.3191	-	-	-
28	30700	0.3342	-	-	-
29	31500	0.3457	-	-	-
30	32200	0.3564	-	-	-
31	32900	0.3713	(0.509)	0.070	(1.371)
32	33300	0.3795	-	-	-
33	35650	0.4212	-	-	-
34	36350	0.4374	-	-	-
35	36950	0.4534	-	-	-
36	37450	0.4649	(0.787)	0.359	(1.693)
37	38000	0.4772	-	-	-
38	40000	0.5265	-	-	-
39	42000	0.5740	-	-	-
40	44000	0.6316	-	-	-
41	46000	0.6861	-	-	-
42	48000	0.7392	-	-	-
43	50000	0.8028	-	-	-
44	52000	0.8727	-	-	-
45	54000	0.9503	-	-	-
46	56000	1.0392	-	-	-
47	57000	1.0734	-	-	-
48	58000	1.1296	-	-	-
49	58500	1.1575	-	-	-
50	59000	1.1913	-	-	-

TABLE 1-57. CRACK GROWTH DATA FOR SPECIMEN ABPLC18

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	9500	0.0335	-	0.000	-
3	14500	0.0441	-	0.000	-
4	18500	0.0542	0.070	0.000	1.292
5	21200	0.0610	-	0.000	-
6	26200	0.0719	-	0.000	-
7	31200	0.0825	-	0.000	-
8	36200	0.0965	-	0.000	-
9	40200	0.1115	0.140	0.000	1.256
10	43200	0.1226	-	0.000	-
11	47200	0.1334	-	0.000	-
12	51200	0.1446	-	0.000	-
13	55200	0.1570	-	0.000	-
14	58200	0.1712	0.222	0.000	1.297
15	59600	0.1779	-	0.000	-
16	63600	0.1903	-	0.000	-
17	66600	0.2027	-	0.000	-
18	69600	0.2166	-	0.000	-
19	71600	0.2266	0.310	0.000	1.368
20	73300	0.2352	-	0.000	-
21	76300	0.2483	-	0.000	-
22	78300	0.2598	-	0.000	-
23	80300	0.2713	-	0.000	-
24	82300	0.2829	0.379	0.000	1.340
25	84100	0.2968	-	0.000	-
26	86100	0.3110	-	0.000	-
27	87500	0.3213	-	0.000	-
28	88700	0.3314	-	0.000	-
29	89600	0.3416	-	0.000	-
30	91400	0.3620	0.430	0.000	1.188
31	92000	0.3703	-	0.000	-

TABLE 1-58. CRACK GROWTH DATA FOR SPECIMEN ABPLC22

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	5000	0.0350	-	0.000	-
3	10000	0.0480	-	0.000	-
4	14000	0.0589	0.038	0.000	0.645
5	17000	0.0669	-	0.000	-
6	25000	0.0788	-	0.000	-
7	31000	0.0895	-	0.000	-
8	36000	0.1068	-	0.000	-
9	40000	0.1175	0.122	0.000	1.038
10	41500	0.1216	-	0.000	-
11	49500	0.1336	-	0.000	-
12	55000	0.1441	-	0.000	-
13	59000	0.1556	-	0.000	-
14	62500	0.1689	0.161	0.000	0.953
15	64000	0.1746	-	0.000	-
16	71000	0.1857	-	0.000	-
17	76000	0.1992	-	0.000	-
18	79500	0.2101	-	0.000	-
19	83500	0.2203	0.197	0.000	0.894
20	85800	0.2261	-	0.000	-
21	93300	0.2370	-	0.000	-
22	97800	0.2482	-	0.000	-
23	102800	0.2586	-	0.000	-
24	107300	0.2711	0.228	0.000	0.841
25	109100	0.2760	-	0.000	-
26	113600	0.2783	-	0.000	-
27	118100	0.2974	-	0.000	-
28	122600	0.3107	-	0.000	-
29	126100	0.3216	0.257	0.000	0.799
30	127400	0.3257	-	0.000	-
31	131400	0.3366	-	0.000	-
32	134900	0.3502	-	0.000	-
33	136900	0.3608	-	0.000	-

TABLE 1-59. CRACK GROWTH DATA FOR SPECIMEN ABPLC32 *

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.0250	0.000	1.000
2	16300	0.1475	-	-	-
3	17300	0.1645	-	-	-
4	17800	0.1750	-	-	-
5	18400	0.1856	-	-	-
6	18900	0.1940	-	-	-
7	19400	0.2058	-	-	-
8	20000	0.2174	-	-	-
9	20800	0.2272	-	-	-
10	21800	0.2387	-	-	-
11	22600	0.2476	-	-	-
12	23500	0.2593	-	-	-
13	24400	0.2700	-	-	-
14	25200	0.2809	-	-	-
15	26200	0.2936	-	-	-
16	26700	0.3000	-	-	-
17	27600	0.3120	-	-	-
18	28500	0.3241	-	-	-
19	29500	0.3349	-	-	-
20	30300	0.3467	-	-	-
21	30700	0.3530	-	-	-
22	31500	0.3634	-	-	-
23	32600	0.3741	-	-	-
24	33400	0.3846	-	-	-
25	34200	0.3970	-	-	-
26	34500	0.4016	-	-	-
27	35400	0.4128	-	-	-
28	36400	0.4235	-	-	-
29	37400	0.4371	-	-	-
30	38400	0.4474	-	-	-
31	39300	0.4570	-	-	-
32	40300	0.4722	-	-	-
33	41500	0.4827	-	-	-
34	42500	0.4963	-	-	-
35	43500	0.5089	-	-	-
36	44200	0.5174	-	-	-
37	45700	0.5387	-	-	-
38	47200	0.5575	-	-	-
39	48700	0.5840	-	-	-
40	50200	0.6079	-	-	-
41	51700	0.6342	-	-	-
42	53200	0.6648	-	-	-
43	54700	0.7035	-	-	-
44	56200	0.7474	-	-	-
45	57100	0.7930	-	-	-
46	57500	0.8233	-	-	-

* FAILURE FROM NATURAL FLAW - TEST IS CONSIDERED INVALID

TABLE 1-60. CRACK GROWTH DATA FOR SPECIMEN ABPLC34 *

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	3800	0.0315	-	-	-
3	8800	0.0428	-	-	-
4	12300	0.0543	-	-	-
5	16800	0.0649	-	-	-
6	20000	0.0725	-	-	-
7	25500	0.0838	-	-	-
8	30000	0.0962	-	-	-
9	33500	0.1073	-	-	-
10	37000	0.1174	-	-	-
11	39400	0.1244	-	-	-
12	44400	0.1346	-	-	-
13	48900	0.1450	-	-	-
14	53400	0.1620	-	-	-
15	55900	0.1723	-	-	-
16	58000	0.1807	-	-	-
17	61000	0.1916	-	-	-
18	64000	0.2020	-	-	-
19	67000	0.2140	-	-	-
20	69500	0.2274	-	-	-
21	70800	0.2344	-	-	-
22	73400	0.2448	-	-	-
23	75900	0.2584	-	-	-
24	77900	0.2722	-	-	-
25	79700	0.2829	-	-	-
26	81200	0.2919	-	-	-
27	83000	0.3065	-	-	-
28	85200	0.3169	-	-	-
29	87000	0.3283	-	-	-
30	88600	0.3386	-	-	-
31	90400	0.3505	-	-	-
32	92000	0.3618	-	-	-
33	93400	0.3726	-	-	-
34	94800	0.3860	-	-	-
35	96000	0.3967	-	-	-
36	97000	0.4056	-	-	-
37	99500	0.4256	-	-	-
38	102000	0.4504	-	-	-
39	104500	0.4749	-	-	-
40	107000	0.4977	-	-	-
41	109500	0.5277	-	-	-
42	112000	0.5517	-	-	-
43	114500	0.5816	-	-	-
44	117000	0.6136	-	-	-
45	119000	0.6383	-	-	-
46	121000	0.6654	-	-	-
47	123000	0.6975	-	-	-
48	124500	0.7315	-	-	-
49	125500	0.7575	-	-	-
50	126500	0.7876	-	-	-

* FAILURE FROM NATURAL FLAW - TEST IS CONSIDERED INVALID

TABLE 1-61. CRACK GROWTH DATA FOR SPECIMEN ABPLC5

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	1200	0.0263	-	0.000	-
3	6200	0.0413	-	0.000	-
4	8200	0.0532	0.067	0.000	1.259
5	9500	0.0607	-	0.000	-
6	11300	0.0707	-	0.000	-
7	13600	0.0819	-	0.000	-
8	15600	0.0938	-	0.000	-
9	17300	0.1045	0.142	0.000	1.359
10	18800	0.1143	-	0.000	-
11	21000	0.1248	-	0.000	-
12	22700	0.1351	-	0.000	-
13	24900	0.1457	-	0.000	-
14	27300	0.1573	0.222	0.000	1.411
15	29200	0.1663	-	0.000	-
16	31400	0.1786	-	0.000	-
17	33600	0.1894	-	0.000	-
18	35800	0.2009	-	0.000	-
19	38000	0.2139	0.314	0.000	1.468
20	39300	0.2217	-	0.000	-
21	41300	0.2323	-	0.000	-
22	43300	0.2465	-	0.000	-
23	45500	0.2581	-	0.000	-
24	47500	0.2690	0.404	0.000	1.502
25	49200	0.2782	-	0.000	-
26	51200	0.2893	-	0.000	-
27	53300	0.3011	-	0.000	-
28	55300	0.3126	-	0.000	-
29	57300	0.3247	0.483	0.000	1.488
30	59000	0.3352	-	-	-
31	60800	0.3455	-	-	-
32	62800	0.3563	-	-	-
33	64800	0.3677	-	-	-
34	66600	0.3785	(0.719)	0.272	(1.900)
35	68100	0.3875	-	-	-
36	73100	0.4194	-	-	-
37	78100	0.4540	-	-	-
38	83100	0.4893	-	-	-
39	88100	0.5252	-	-	-
40	93100	0.5661	-	-	-
41	97100	0.5952	-	-	-
42	101100	0.6281	-	-	-
43	105100	0.6628	-	-	-
44	108100	0.6893	-	-	-
45	111100	0.7180	-	-	-
46	114100	0.7442	-	-	-
47	117100	0.7749	-	-	-
48	120100	0.8065	-	-	-
49	123100	0.8374	-	-	-
50	126100	0.8768	-	-	-

TABLE 1-61. CRACK GROWTH DATA FOR SPECIMEN ABPLC5 (CON T)

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
51	129100	0.9162	-	-	-
52	131600	0.9572	-	-	-
53	133100	0.9803	-	-	-
54	134600	1.0077	-	-	-
55	136100	1.0390	-	-	-
56	137300	1.0788	-	-	-
57	138100	1.1047	-	-	-
58	138700	1.1302	-	-	-
59	139200	1.1486	-	-	-
60	139700	1.1750	-	-	-
61	140100	1.2098	-	-	-
62	140300	1.2312	-	-	-
63	140400	1.2477	-	-	-

TABLE 1-62. CRACK GROWTH DATA FOR SPECIMEN ABPLC54

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	19100	0.0496	-	0.000	-
3	24600	0.0604	-	0.000	-
4	29100	0.0788	-	0.000	-
5	31600	0.0927	0.122	0.000	1.316
6	32600	0.0984	-	0.000	-
7	36100	0.1178	-	0.000	-
8	38600	0.1288	-	0.000	-
9	41600	0.1420	-	0.000	-
10	44100	0.1536	0.214	0.000	1.393
11	45800	0.1613	-	0.000	-
12	48300	0.1720	-	0.000	-
13	50800	0.1842	-	0.000	-
14	52800	0.1954	-	0.000	-
15	54800	0.2079	0.307	0.000	1.477
16	56100	0.2163	-	0.000	-
17	58100	0.2281	-	0.000	-
18	60100	0.2414	-	0.000	-
19	62100	0.2521	-	0.000	-
20	63600	0.2622	0.417	0.000	1.590
21	64800	0.2702	-	-	-
22	67300	0.2812	-	-	-
23	68800	0.2918	-	-	-
24	70300	0.3028	-	-	-
25	71800	0.3152	(0.611)	0.181	(1.938)
26	72900	0.3244	-	-	-
27	74500	0.3348	-	-	-
28	76000	0.3473	-	-	-
29	77300	0.3577	-	-	-
30	78500	0.3678	(0.787)	0.284	(2.139)
31	80200	0.3825	-	-	-
32	81600	0.3934	-	-	-
33	82800	0.4035	-	-	-
34	84300	0.4137	-	-	-
35	85500	0.4261	-	-	-
36	86600	0.4368	(0.968)	0.374	(2.216)
37	87900	0.4497	-	-	-
38	90900	0.4728	-	-	-
39	94400	0.5072	-	-	-
40	97400	0.5350	-	-	-
41	100400	0.5676	-	-	-
42	103400	0.5975	-	-	-
43	106400	0.6241	-	-	-
44	109400	0.6622	-	-	-
45	112400	0.6900	-	-	-
46	115400	0.7215	-	-	-
47	119400	0.7642	-	-	-
48	123400	0.8159	-	-	-
49	127400	0.8739	-	-	-

TABLE 1-62. CRACK GROWTH DATA FOR SPECIMEN ABPLC54 (CON'T)

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
50	131400	0.9324	-	-	-
51	135400	0.9963	-	-	-
52	139400	1.0785	-	-	-
53	141400	1.1314	-	-	-
54	143400	1.1965	-	-	-

TABLE 1-63. CRACK GROWTH DATA FOR SPECIMEN SBPLC17

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	5300	0.0338	-	0.000	-
3	9300	0.0464	-	0.000	-
4	12900	0.0575	0.063	0.000	1.096
5	15000	0.0641	-	0.000	-
6	19000	0.0741	-	0.000	-
7	23000	0.0953	-	0.000	-
8	25000	0.1083	-	0.000	-
9	27500	0.1887	0.114	0.000	0.960
10	27400	0.1241	-	0.000	-
11	29200	0.1345	-	0.000	-
12	30800	0.1452	-	0.000	-
13	32400	0.1577	-	0.000	-
14	33900	0.1712	0.167	0.000	0.975
15	34700	0.1782	-	0.000	-
16	36200	0.1900	-	0.000	-
17	37600	0.2046	-	0.000	-
18	38600	0.2168	-	0.000	-
19	39500	0.2284	0.227	0.000	0.994
20	40200	0.2373	-	0.000	-
21	41200	0.2485	-	0.000	-
22	42100	0.2607	-	0.000	-
23	42900	0.2720	-	0.000	-
24	43700	0.2890	-	-	-
25	44000	0.2961	0.286	0.000	0.966
26	44800	0.3127	-	-	-
27	45200	0.3262	-	-	-
28	45500	0.3374	-	-	-

TABLE 1-64. CRACK GROWTH DATA FOR SPECIMEN SBPLC20

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	7000	0.0351	-	0.000	-
3	13000	0.0470	-	0.000	-
4	17000	0.0605	-	0.000	-
5	19000	0.0698	0.129	0.000	1.848
6	20800	0.0781	-	0.000	-
7	23300	0.0879	-	0.000	-
8	25800	0.1021	-	0.000	-
9	27600	0.1135	-	0.000	-
10	29300	0.1247	0.221	0.000	1.772
11	30700	0.1341	-	0.000	-
12	32200	0.1449	-	0.000	-
13	33600	0.1569	-	0.000	-
14	34800	0.1680	-	0.000	-
15	35900	0.1789	0.309	0.000	1.727
16	37000	0.1891	-	0.000	-
17	38000	0.1993	-	0.000	-
18	38900	0.2127	-	0.000	-
19	39700	0.2228	-	0.000	-
20	40400	0.2328	0.383	0.000	1.645
21	41400	0.2476	-	0.000	-
22	42100	0.2578	-	0.000	-
23	42800	0.2706	-	0.000	-
24	43400	0.2827	-	0.000	-
25	43900	0.2951	0.453	0.000	1.535
26	44300	0.3046	-	-	-
27	44700	0.3175	-	-	-
28	45000	0.3279	-	-	-
29	45200	0.3386	-	-	-
30	45300	0.3510	(0.532)	0.120	(1.516)
31	45400	0.3605	-	-	-

TABLE 1-65. CRACK GROWTH DATA FOR SPECIMEN SBPLC30

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	7800	0.0324	-	0.000	-
3	15800	0.0428	-	0.000	-
4	21800	0.0536	0.070	0.000	1.306
5	26400	0.0618	-	0.000	-
6	33400	0.0724	-	0.000	-
7	40400	0.0910	-	0.000	-
8	46400	0.1152	-	0.000	-
9	49400	0.1265	0.186	0.000	1.470
10	50800	0.1317	-	0.000	-
11	53800	0.1469	-	0.000	-
12	56300	0.1620	-	0.000	-
13	58300	0.1743	-	0.000	-
14	59800	0.1857	0.266	0.000	1.432
15	62100	0.2030	-	0.000	-
16	63800	0.2133	-	0.000	-
17	65300	0.2263	-	0.000	-
18	66600	0.2375	-	0.000	-
19	67700	0.2474	0.369	0.000	1.492
20	69500	0.2635	-	0.000	-
21	70700	0.2734	-	0.000	-
22	71700	0.2837	-	0.000	-
23	72700	0.2941	-	0.000	-
24	73700	0.3063	0.458	0.000	1.495
25	74200	0.3126	-	-	-
26	75300	0.3242	-	-	-
27	76300	0.3355	-	-	-
28	77300	0.3469	-	-	-
29	78200	0.3577	(0.643)	0.225	(1.798)
30	78900	0.3666	-	-	-
31	79900	0.3773	-	-	-
32	80800	0.3885	-	-	-
33	81700	0.3995	-	-	-
34	82500	0.4110	(0.879)	0.338	(2.138)
35	83200	0.4212	-	-	-
36	85700	0.4529	-	-	-
37	88200	0.4864	-	-	-
38	90700	0.5148	-	-	-
39	93200	0.5412	-	-	-
40	95700	0.5696	-	-	-
41	98200	0.6030	-	-	-
42	99200	0.6151	-	-	-

TABLE 1-66. CRACK GROWTH DATA FOR SPECIMEN SBPLC32

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	6400	0.0294	-	0.000	-
3	18400	0.0399	-	0.000	-
4	24400	0.0533	-	0.000	-
5	27900	0.0639	0.118	0.000	1.847
6	30100	0.0705	-	0.000	-
7	33600	0.0805	-	0.000	-
8	37100	0.0949	-	0.000	-
9	39600	0.1077	-	0.000	-
10	41600	0.1177	0.205	0.000	1.749
11	43400	0.1260	-	0.000	-
12	45900	0.1371	-	0.000	-
13	48400	0.1532	-	0.000	-
14	50000	0.1634	-	0.000	-
15	51500	0.1737	0.288	0.000	1.658
16	52800	0.1823	-	0.000	-
17	54400	0.1928	-	0.000	-
18	55900	0.2031	-	0.000	-
19	57300	0.2158	-	0.000	-
20	58700	0.2268	0.371	0.000	1.636
21	59900	0.2359	-	0.000	-
22	61300	0.2481	-	0.000	-
23	62500	0.2589	-	0.000	-
24	63700	0.2701	-	0.000	-
25	64900	0.2801	0.467	0.000	1.677
26	66200	0.2906	-	-	-
27	67400	0.3020	-	-	-
28	68500	0.3131	-	-	-
29	69600	0.3246	-	-	-
30	70600	0.3356	(0.658)	0.218	(1.960)
31	71500	0.3460	-	-	-
32	72500	0.3565	-	-	-
33	73500	0.3662	-	-	-
34	74500	0.3793	-	-	-
35	75300	0.3901	(0.853)	0.316	(2.186)
36	76000	0.4002	-	-	-
37	78500	0.4306	-	-	-
38	81300	0.4854	-	-	-
39	84300	0.5327	-	-	-
40	87300	0.5824	-	-	-
41	90300	0.6360	-	-	-
42	93300	0.7041	-	-	-

TABLE 1-67. CRACK GROWTH DATA FOR SPECIMEN SBPLC55

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	5400	0.0290	-	0.000	-
3	17400	0.0403	-	0.000	-
4	26400	0.0611	-	0.000	-
5	29400	0.0715	0.909	0.000	1.259
6	30800	0.0762	-	0.000	-
7	33800	0.0875	-	0.000	-
8	36600	0.0976	-	0.000	-
9	39200	0.1087	-	0.000	-
10	41500	0.1207	0.162	0.000	1.342
11	43000	0.1286	-	0.000	-
12	45000	0.1388	-	0.000	-
13	47000	0.1492	-	0.000	-
14	48900	0.1611	-	0.000	-
15	50600	0.1714	0.235	0.000	1.371
16	52100	0.1802	-	0.000	-
17	53800	0.1911	-	0.000	-
18	55400	0.2017	-	0.000	-
19	57000	0.2127	-	0.000	-
20	58600	0.2251	0.316	0.000	1.404
21	59400	0.2316	-	0.000	-
22	60900	0.2446	-	0.000	-
23	62500	0.2593	-	0.000	-
24	63900	0.2695	-	0.000	-
25	65300	0.2820	0.405	0.000	1.436
26	66200	0.2904	-	-	-
27	67500	0.3071	-	-	-
28	68700	0.3134	-	-	-
29	69900	0.3256	-	-	-
30	71000	0.3360	(0.525)	0.102	(1.562)
31	71900	0.3440	-	-	-
32	73000	0.3568	-	-	-
33	74200	0.3684	-	-	-
34	75300	0.3790	-	-	-
35	76500	0.3904	(0.608)	0.222	(1.557)
36	77700	0.4022	-	-	-
37	80700	0.4338	-	-	-
38	85700	0.4905	-	-	-
39	90700	0.5526	-	-	-
40	95700	0.6125	-	-	-
41	100700	0.6751	-	-	-
42	105700	0.7394	-	-	-
43	110700	0.8074	-	-	-
44	115700	0.8818	-	-	-
45	120700	0.9568	-	-	-
46	124700	1.0250	-	-	-

TABLE 1-68. CRACK GROWTH DATA FOR SPECIMEN SBPLC79

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	3100	0.0297	-	0.000	-
3	9100	0.0413	-	0.000	-
4	13100	0.0526	-	0.000	-
5	17100	0.0664	-	0.000	-
6	20100	0.0783	0.103	0.000	1.315
7	22900	0.0895	-	0.000	-
8	25900	0.1047	-	0.000	-
9	28400	0.1186	-	0.000	-
10	30900	0.1308	-	0.000	-
11	32900	0.1435	0.203	0.000	1.415
12	33900	0.1501	-	0.000	-
13	35900	0.1642	-	0.000	-
14	37900	0.1772	-	0.000	-
15	39900	0.1937	-	0.000	-
16	41900	0.2064	0.293	0.000	1.420
17	43300	0.2154	-	0.000	-
18	45300	0.2277	-	0.000	-
19	47300	0.2434	-	0.000	-
20	48800	0.2560	-	0.000	-
21	50300	0.2668	0.396	0.000	1.484
22	51500	0.2751	-	-	-
23	53000	0.2869	-	-	-
24	54500	0.3010	-	-	-
25	55600	0.3112	-	-	-
26	56700	0.3221	(0.504)	0.039	(1.564)
27	57500	0.3300	-	-	-
28	58700	0.3401	-	-	-
29	59900	0.3510	-	-	-
30	61100	0.3635	-	-	-
31	62300	0.3758	(0.644)	0.237	(1.714)
32	62800	0.3808	-	-	-
33	64000	0.3940	-	-	-
34	65000	0.4056	-	-	-
35	66100	0.4160	-	-	-
36	67100	0.4266	(0.804)	0.334	(1.884)
37	67800	0.4342	-	-	-
38	68900	0.4448	-	-	-
39	70000	0.4567	-	-	-
40	72500	0.4833	-	-	-
41	75000	0.5096	-	-	-
42	77500	0.5372	-	-	-
43	80000	0.5638	-	-	-
44	82500	0.5900	-	-	-
45	85000	0.6148	-	-	-
46	87500	0.6414	-	-	-

TABLE 1-68. CRACK GROWTH DATA FOR SPECIMEN SBPLC79 (CON'T)

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	^c B (IN.)	a/c
47	90000	0.6689	-	-	-
48	92500	0.6952	-	-	-
49	95000	0.7220	-	-	-
50	97500	0.7485	-	-	-
51	100000	0.7748	-	-	-
52	102500	0.7985	-	-	-
53	105000	0.8331	-	-	-
54	107500	0.8634	-	-	-
55	110000	0.8955	-	-	-
56	111500	0.9165	-	-	-
57	113000	0.9364	-	-	-
58	114500	0.9566	-	-	-

TABLE 1-69. CRACK GROWTH DATA FOR SPECIMEN SBPLC18

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	12700	0.0324	-	0.000	-
3	26700	0.0431	-	0.000	-
4	40700	0.0549	-	0.000	-
5	51700	0.0650	0.116	0.000	1.785
6	62300	0.0747	-	0.000	-
7	74300	0.0858	-	0.000	-
8	85300	0.1022	-	0.000	-
9	91300	0.1129	-	0.000	-
10	99300	0.1238	0.228	0.000	1.842
11	101000	0.1261	-	0.000	-
12	106000	0.1363	-	0.000	-
13	112000	0.1480	-	0.000	-
14	117000	0.1619	-	0.000	-
15	120000	0.1720	0.329	0.000	1.913
16	122900	0.1818	-	0.000	-
17	126900	0.1928	-	0.000	-
18	130900	0.2062	-	0.000	-
19	133900	0.2166	-	0.000	-
20	136900	0.2278	0.427	0.000	1.874
21	139600	0.2379	-	0.000	-
22	142600	0.2488	-	0.000	-
23	145400	0.2616	-	0.000	-
24	147600	0.2725	-	0.000	-
25	149600	0.2846	0.490	0.000	1.722
26	151200	0.2942	-	-	-
27	153000	0.3055	-	-	-
28	154600	0.3163	-	-	-
29	156000	0.3276	-	-	-
30	157200	0.3380	(0.565)	0.157	(1.670)
31	158200	0.3469	-	-	-
32	159200	0.3640	-	-	-

TABLE 1-70. CRACK GROWTH DATA FOR SPECIMEN SBPLC19

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	9800	0.0337	-	0.000	-
3	22800	0.0439	-	0.000	-
4	34800	0.0565	0.098	0.000	1.735
5	44600	0.0668	-	0.000	-
6	55600	0.0784	-	0.000	-
7	65600	0.0924	-	0.000	-
8	72600	0.1050	-	0.000	-
9	78600	0.1158	0.194	0.000	1.675
10	84200	0.1258	-	0.000	-
11	90200	0.1372	-	0.000	-
12	95200	0.1480	-	0.000	-
13	100200	0.1611	-	0.000	-
14	104700	0.1725	0.286	0.000	1.658
15	109500	0.1846	-	0.000	-
16	113500	0.1947	-	0.000	-
17	117500	0.2077	-	0.000	-
18	120500	0.2193	-	0.000	-
19	123500	0.2298	0.382	0.000	1.662
20	126600	0.2407	-	0.000	-
21	129600	0.2541	-	0.000	-
22	132100	0.2653	-	0.000	-
23	134100	0.2758	-	0.000	-
24	136100	0.2880	0.475	0.000	1.649
25	138000	0.2998	-	-	-
26	140000	0.3132	-	-	-
27	141500	0.3252	-	-	-
28	142800	0.3376	-	-	-
29	143900	0.3482	(0.597)	0.190	(1.714)
30	146500	0.3728	-	-	-

TABLE 1-71. CRACK GROWTH DATA FOR SPECIMEN SBPLC31

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	11000	0.0288	-	0.000	-
3	35000	0.0392	-	0.000	-
4	59000	0.0499	-	0.000	-
5	82000	0.0641	0.100	0.000	1.560
6	95000	0.0721	-	0.000	-
7	115000	0.0869	-	0.000	-
8	130000	0.1016	-	0.000	-
9	140000	0.1132	-	0.000	-
10	148000	0.1252	0.179	0.000	1.430
11	156000	0.1372	-	0.000	-
12	166000	0.1483	-	0.000	-
13	175000	0.1614	-	0.000	-
14	183000	0.1747	-	0.000	-
15	190000	0.1870	0.282	0.000	1.508
16	193400	0.1929	-	0.000	-
17	200400	0.2059	-	0.000	-
18	206400	0.2182	-	0.000	-
19	211900	0.2292	-	0.000	-
20	217200	0.2413	0.365	0.000	1.513
21	220600	0.2491	-	0.000	-
22	225600	0.2609	-	0.000	-
23	230100	0.2722	-	0.000	-
24	234600	0.2855	-	0.000	-
25	238100	0.2961	0.464	0.000	1.567
26	241100	0.3051	-	-	-
27	244800	0.3158	-	-	-
28	248300	0.3265	-	-	-
29	251500	0.3372	-	-	-
30	254900	0.3478	(0.611)	0.200	(1.757)
31	257900	0.3574	-	-	-
32	261600	0.3681	-	-	-
33	265000	0.3801	-	-	-
34	268200	0.3917	-	-	-
35	271200	0.4030	(0.823)	0.320	(2.041)
36	274200	0.4143	-	-	-
37	281200	0.4396	-	-	-
38	288200	0.4689	-	-	-
39	295200	0.4960	-	-	-
40	302200	0.5312	-	-	-
41	308200	0.5601	-	-	-
42	313200	0.5854	-	-	-
43	318200	0.6115	-	-	-
44	323200	0.6403	-	-	-
45	328200	0.6701	-	-	-
46	333200	0.7029	-	-	-
47	337700	0.7275	-	-	-
48	342200	0.7648	-	-	-
49	345200	0.7928	-	-	-
50	348200	0.8247	-	-	-
51	350200	0.8518	-	-	-

TABLE 1-72. CRACK GROWTH DATA FOR SPECIMEN SBPLC34

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	7300	0.0266	-	0.000	-
3	47300	0.0373	-	0.000	-
4	75300	0.0477	-	0.000	-
5	95300	0.0591	0.087	0.000	1.472
6	105000	0.0647	-	0.000	-
7	122000	0.0752	-	0.000	-
8	137000	0.0896	-	0.000	-
9	150000	0.1007	-	0.000	-
10	161000	0.1129	0.154	0.000	1.453
11	166300	0.1187	-	0.000	-
12	177300	0.1297	-	0.000	-
13	188300	0.1461	-	0.000	-
14	197300	0.1594	-	0.000	-
15	204300	0.1716	0.257	0.000	1.498
16	208100	0.1782	-	0.000	-
17	214600	0.1885	-	0.000	-
18	220100	0.1996	-	0.000	-
19	225100	0.2102	-	0.000	-
20	230100	0.2215	0.346	0.000	1.562
21	233600	0.2301	-	0.000	-
22	239100	0.2401	-	0.000	-
23	244100	0.2533	-	0.000	-
24	248100	0.2635	-	0.000	-
25	251600	0.2734	0.447	0.000	1.635
26	255300	0.2838	-	-	-
27	259300	0.2937	-	-	-
28	262800	0.3048	-	-	-
29	266300	0.3152	-	-	-
30	269800	0.3263	(0.605)	0.184	(1.855)
31	272500	0.3351	-	-	-
32	276000	0.3473	-	-	-
33	279000	0.3581	-	-	-
34	282500	0.3708	-	-	-
35	286000	0.3848	(0.747)	0.286	(1.942)
36	288800	0.3959	-	-	-
37	296800	0.4294	-	-	-
38	304800	0.4668	-	-	-
39	312800	0.5080	-	-	-
40	319800	0.5476	-	-	-
41	325800	0.5857	-	-	-
42	330800	0.6195	-	-	-
43	335800	0.6582	-	-	-
44	340800	0.6996	-	-	-
45	345800	0.7481	-	-	-
46	350800	0.8120	-	-	-

TABLE 1-73. CRACK GROWTH DATA FOR SPECIMEN SBPLC5

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	29400	0.0394	-	0.000	-
3	44400	0.0497	-	0.000	-
4	57400	0.0604	-	0.000	-
5	70400	0.0718	0.086	0.000	1.198
6	76700	0.0773	-	0.000	-
7	89700	0.0916	-	0.000	-
8	100700	0.1044	-	0.000	-
9	110700	0.1195	-	0.000	-
10	118700	0.1306	0.171	0.000	1.309
11	122900	0.1364	-	0.000	-
12	130900	0.1488	-	0.000	-
13	137900	0.1595	-	0.000	-
14	144900	0.1709	-	0.000	-
15	151900	0.1848	0.260	0.000	1.407
16	155400	0.1917	-	0.000	-
17	161400	0.2051	-	0.000	-
18	166900	0.2158	-	0.000	-
19	172400	0.2279	-	0.000	-
20	177400	0.2415	0.351	0.000	1.453
21	179800	0.2479	-	0.000	-
22	184800	0.2592	-	0.000	-
23	189800	0.2715	-	0.000	-
24	194300	0.2826	-	0.000	-
25	198800	0.2940	0.458	0.000	1.558
26	203000	0.3046	-	-	-
27	207200	0.3154	-	-	-
28	211200	0.3260	-	-	-
29	215200	0.3376	-	-	-
30	219200	0.3494	(0.652)	0.224	(1.865)
31	222900	0.3605	-	-	-
32	226900	0.3739	-	-	-
33	230400	0.3845	-	-	-
34	233900	0.3969	-	-	-
35	236900	0.4078	(0.888)	0.537	(2.177)
36	240000	0.4189	-	-	-
37	248000	0.4489	-	-	-
38	256000	0.4809	-	-	-
39	264000	0.5133	-	-	-
40	272000	0.5461	-	-	-
41	280000	0.5804	-	-	-
42	288000	0.6166	-	-	-
43	298000	0.6633	-	-	-
44	308000	0.7127	-	-	-
45	318000	0.7606	-	-	-
46	328000	0.8153	-	-	-
47	338000	0.8713	-	-	-
48	348000	0.9320	-	-	-
49	358000	0.9954	-	-	-

TABLE 1-73. CRACK GROWTH DATA FOR SPECIMEN SBPLC5 (CON'T)

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	^c _B (IN.)	a/c
50	368000	1.0652	-	-	-
51	378000	1.1436	-	-	-
52	380000	1.1616	-	-	-
53	383000	1.1863	-	-	-
54	384500	1.2035	-	-	-

TABLE 1-74. CRACK GROWTH DATA FOR SPECIMEN SBPLC80

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	21100	0.0321	-	0.000	-
3	46100	0.0427	-	0.000	-
4	66100	0.0539	0.061	0.000	1.132
5	78100	0.0607	-	0.000	-
6	95100	0.0739	-	0.000	-
7	108100	0.0851	-	0.000	-
8	121100	0.0979	-	0.000	-
9	132100	0.1099	0.150	0.000	1.365
10	145100	0.1235	-	0.000	-
11	155100	0.1375	-	0.000	-
12	163100	0.1493	-	0.000	-
13	170600	0.1602	-	0.000	-
14	177600	0.1712	0.249	0.000	1.454
15	184800	0.1825	-	0.000	-
16	191800	0.1937	-	0.000	-
17	198300	0.2052	-	0.000	-
18	204300	0.2163	-	0.000	-
19	210300	0.2277	0.338	0.000	1.484
20	215700	0.2379	-	0.000	-
21	221700	0.2495	-	0.000	-
22	227200	0.2604	-	0.000	-
23	232700	0.2733	-	0.000	-
24	237700	0.2838	0.450	0.000	1.586
25	241900	0.2927	-	-	-
26	247400	0.3037	-	-	-
27	252400	0.3156	-	-	-
28	257400	0.3265	-	-	-
29	262400	0.3386	(0.620)	0.200	(1.830)
30	266100	0.3475	-	-	-
31	270600	0.3589	-	-	-
32	275100	0.3700	-	-	-
33	279600	0.3808	-	-	-
34	284100	0.3940	-	-	-
35	287600	0.4039	(0.784)	0.311	(1.940)
36	290700	0.4126	-	-	-
37	297700	0.4325	-	-	-
38	305700	0.4575	-	-	-
39	313700	0.4820	-	-	-
40	321700	0.5067	-	-	-
41	329700	0.5326	-	-	-
42	337700	0.5604	-	-	-
43	345700	0.5877	-	-	-
44	353700	0.6149	-	-	-
45	361700	0.6441	-	-	-
46	369700	0.6738	-	-	-

TABLE 1-74. CRACK GRCWTH DATA FOR SPECIMEN SBPLC80 (CON'T)

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
47	377700	0.7046	-	-	-
48	385700	0.7367	-	-	-
49	393700	0.7691	-	-	-
50	401700	0.8040	-	-	-
51	409700	0.8389	-	-	-
52	417700	0.8784	-	-	-
53	425700	0.9137	-	-	-
54	433700	0.9520	-	-	-
55	439700	0.9846	-	-	-
56	444700	1.0113	-	-	-
57	449700	1.0407	-	-	-
58	454700	1.0702	-	-	-
59	459700	1.1011	-	-	-
60	464700	1.1339	-	-	-
61	468700	1.1636	-	-	-
62	472700	1.1929	-	-	-
63	476700	1.2216	-	-	-

TABLE 1-75. CRACK GROWTH DATA FOR SPECIMEN ABPLC19 *

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	^c B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	300	0.0283	-	-	-
3	1400	0.0384	-	-	-
4	2000	0.0534	-	-	-
5	2280	0.0604	-	-	-
6	3080	0.0710	-	-	-

* SPECIMEN FAILED FROM NATURAL FLAW - TEST IS CONSIDERED INVALID

TABLE 1-76. CRACK GROWTH DATA FOR SPECIMEN ABPLC23 *

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	600	0.0350	-	-	-
3	1200	0.0418	-	-	-
4	1800	0.0520	-	-	-
5	2200	0.0588	-	-	-

* SPECIMEN FAILED FROM NATURAL FLAW - TEST IS CONSIDERED INVALID

TABLE 1-77. CRACK GROWTH DATA FOR SPECIMEN ABPLC31 *

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	100	0.0263	-	-	-
3	700	0.0386	-	-	-
4	1200	0.0502	-	-	-
5	5000	0.1391	-	-	-
6	5210	0.1502	-	-	-
7	5310	0.1617	-	-	-
8	5410	0.1733	-	-	-
9	5510	0.1867	-	-	-
10	5630	0.2024	-	-	-
11	5820	0.2211	-	-	-
12	5920	0.2390	-	-	-
13	5980	0.2581	-	-	-
14	6010	0.2693	-	-	-
15	6035	0.2786	-	-	-
16	6095	0.2959	-	-	-

* SPECIMEN FAILED FROM NATURAL FLAW - TEST IS CONSIDERED INVALID

TABLE 1-78. CRACK GROWTH DATA FOR SPECIMEN ABPLC33

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	175	0.0304	-	0.000	-
3	575	0.0433	-	0.000	-
4	925	0.0549	0.053	0.000	0.965
5	1210	0.0643	-	0.000	-
6	1610	0.0771	-	0.000	-
7	1910	0.0892	-	0.000	-
8	2210	0.1001	-	0.000	-
9	2460	0.1138	0.141	0.000	1.239
10	2600	0.1215	-	0.000	-
11	2850	0.1340	-	0.000	-
12	3050	0.1486	-	0.000	-
13	3150	0.1593	-	0.000	-
14	3300	0.1704	0.246	0.000	1.444
15	3490	0.1845	-	0.000	-
16	3640	0.1954	-	0.000	-
17	3740	0.2073	-	0.000	-
18	3860	0.2185	-	0.000	-
19	3960	0.2309	0.346	0.000	1.498
20	4080	0.2457	-	0.000	-
21	4180	0.2627	-	0.000	-
22	4230	0.2751	-	0.000	-
23	4280	0.2909	-	0.000	-
24	4310	0.3069	0.442	0.000	1.440
25	4325	0.3143	-	-	-
26	4355	0.3250	-	-	-
27	4385	0.3371	-	-	-
28	4405	0.3522	-	-	-
29	4425	0.3675	(0.579)	0.185	(1.575)
30	4435	0.3742	-	-	-
31	4450	0.3849	-	-	-
32	4465	0.4038	-	-	-
33	4475	0.4203	-	-	-
34	4485	0.4761	(0.694)	0.330	(1.457)
35	4488	0.4927	-	-	-

TABLE 1-79. CRACK GROWTH DATA FOR SPECIMEN ABPLC8

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	870	0.0543	-	0.000	-
3	1070	0.0649	-	0.000	-
4	1220	0.0786	-	0.000	-
5	1370	0.0916	0.105	0.000	1.146
6	1485	0.1016	-	0.000	-
7	1585	0.1121	-	0.000	-
8	1745	0.1250	-	0.000	-
9	1845	0.1407	-	0.000	-
10	1925	0.1584	0.182	0.000	1.149
11	1960	0.1665	-	0.000	-
12	2050	0.1770	-	0.000	-
13	2120	0.1914	-	0.000	-
14	2180	0.2041	-	0.000	-
15	2230	0.2171	0.236	0.000	1.087
16	2255	0.2241	-	0.000	-
17	2305	0.2345	-	0.000	-
18	2345	0.2450	-	0.000	-
19	2385	0.2590	-	0.000	-
20	2435	0.2719	0.284	0.000	1.045
21	2470	0.2806	-	0.000	-
22	2540	0.2941	-	0.000	-
23	2580	0.3097	-	0.000	-
24	2630	0.3242	-	0.000	-
25	2660	0.3351	0.339	0.000	1.012
26	2680	0.3430	-	0.000	-
27	2730	0.3542	-	0.000	-
28	2760	0.3710	-	0.000	-
29	2780	0.3827	0.402	0.000	1.050
30	2810	0.3934	-	-	-
31	2830	0.4004	-	-	-
32	2870	0.4107	-	-	-
33	2900	0.4204	-	-	-
34	2930	0.4402	-	-	-
35	2960	0.4561	(0.501)	0.030	(1.099)
36	2980	0.4657	-	-	-
37	3060	0.5176	-	-	-
38	3140	0.6408	-	-	-
39	3170	0.7495	-	-	-
40	3190	0.8349	-	-	-
41	3200	0.8963	-	-	-
42	3210	0.9567	-	-	-

TABLE 1-80. CRACK GROWTH DATA FOR SPECIMEN ABPL057

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	355	0.0451	-	0.000	-
3	505	0.0578	-	0.000	-
4	705	0.0689	-	0.000	-
5	895	0.0800	0.091	0.000	1.138
6	1125	0.0936	-	0.000	-
7	1325	0.1183	-	0.000	-
8	1425	0.1288	-	0.000	-
9	1550	0.1414	-	0.000	-
10	1650	0.1579	0.202	0.000	1.279
11	1760	0.1758	-	0.000	-
12	1860	0.1885	-	0.000	-
13	1935	0.1989	-	0.000	-
14	2010	0.2205	-	0.000	-
15	2055	0.2313	0.273	0.000	1.180
16	2095	0.2410	-	0.000	-
17	2145	0.2523	-	0.000	-
18	2185	0.2650	-	0.000	-
19	2235	0.2762	-	0.000	-
20	2275	0.2902	0.335	0.000	1.154
21	2300	0.2892	-	0.000	-
22	2340	0.3132	-	0.000	-
23	2380	0.3267	-	0.000	-
24	2410	0.3447	-	0.000	-
25	2430	0.3566	0.403	0.000	1.130
26	2445	0.3649	-	0.000	-
27	2475	0.3781	-	0.000	-
28	2495	0.3905	-	0.000	-
29	2525	0.4035	-	0.000	-
30	2545	0.4197	0.478	0.000	1.130
31	2565	0.4341	-	-	-
32	2585	0.4475	-	-	-
33	2605	0.4717	-	-	-
34	2625	0.4934	-	-	-
35	2635	0.5058	(0.629)	0.307	(1.244)
36	2650	0.5214	-	-	-
37	2680	0.5970	-	-	-
38	2700	0.6472	-	-	-
39	2720	0.6972	-	-	-
40	2740	0.7720	-	-	-
41	2750	0.8036	-	-	-
42	2760	0.8490	-	-	-
43	2770	0.9036	-	-	-
44	2780	0.9627	-	-	-

TABLE 1-81. CRACK GROWTH DATA FOR SPECIMEN ABPLC20 *

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	570	0.0289	-	-	-
3	1770	0.0422	-	-	-
4	3570	0.0620	-	-	-
5	4470	0.0777	-	-	-

* SPECIMEN FAILED FROM NATURAL FLAW - TEST IS CONSIDERED INVALID

TABLE 1-82. CRACK GROWTH DATA FOR SPECIMEN ABPLC71 *

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	440	0.0279	-	-	-
3	840	0.0317	-	-	-
4	1240	0.0362	-	-	-
5	1640	0.0397	-	-	-
6	2040	0.0450	-	-	-
7	2440	0.0530	-	-	-
8	2840	0.0613	-	-	-
9	3240	0.0670	-	-	-
10	3640	0.0722	-	-	-
11	4040	0.0785	-	-	-
12	4440	0.0836	-	-	-
13	4840	0.0909	-	-	-
14	5240	0.0999	-	-	-
15	5640	0.1089	-	-	-
16	6040	0.1183	-	-	-

* SPECIMEN FAILED FROM NATURAL FLAW - TEST IS CONSIDERED INVALID

TABLE 1-83. CRACK GROWTH DATA FOR SPECIMEN ABPLC35

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	450	0.0320	-	0.000	-
3	950	0.0421	-	0.000	-
4	1450	0.0536	-	0.000	-
5	1850	0.0670	0.125	0.000	1.866
6	4350	0.1516	-	0.000	-
7	4550	0.1648	-	0.000	-
8	4750	0.1750	-	0.000	-
9	4970	0.1854	-	0.000	-
10	5190	0.1971	0.255	0.000	1.294
11	5470	0.2119	-	0.000	-
12	5700	0.2222	-	0.000	-
13	5900	0.2335	-	0.000	-
14	6100	0.2497	-	0.000	-
15	6300	0.2610	0.328	0.000	1.257
16	6470	0.2705	-	0.000	-
17	6670	0.2852	-	0.000	-
18	6820	0.2967	-	0.000	-
19	6960	0.3159	-	0.000	-
20	7120	0.3260	0.398	0.000	1.221
21	7240	0.3337	-	0.000	-
22	7380	0.3495	-	0.000	-
23	7470	0.3611	-	0.000	-
24	7550	0.3788	-	0.000	-
25	7620	0.3949	-	0.000	-
26	7650	0.4021	0.463	0.000	1.151
27	7730	0.4151	-	-	-
28	7780	0.4270	-	-	-
29	7840	0.4451	-	-	-
30	7880	0.4596	(0.555)	0.199	(1.207)
31	7920	0.4735	-	-	-
32	7950	0.4907	-	-	-
33	7990	0.5018	-	-	-
34	8010	0.5210	-	-	-
35	8020	0.5327	(0.599)	0.293	(1.124)
36	8030	0.5427	-	-	-
37	8070	0.5658	-	-	-
38	8110	0.6019	-	-	-
39	8140	0.6356	-	-	-

TABLE 1-84. CRACK GROWTH DATA FOR SPECIMEN ABPLC37

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	620	0.0346	-	0.000	-
3	1120	0.0450	-	0.000	-
4	1620	0.0555	-	0.000	-
5	2120	0.0699	0.092	0.000	1.316
6	2450	0.0794	-	0.000	-
7	2850	0.0910	-	0.000	-
8	3150	0.1014	-	0.000	-
9	3500	0.1125	-	0.000	-
10	3800	0.1245	0.143	0.000	1.149
11	4030	0.1336	-	0.000	-
12	4280	0.1452	-	0.000	-
13	4530	0.1562	-	0.000	-
14	4880	0.1700	-	0.000	-
15	5130	0.1802	0.202	0.000	1.121
16	5480	0.1946	-	0.000	-
17	5730	0.2110	-	0.000	-
18	5930	0.2232	-	0.000	-
19	6130	0.2355	-	0.000	-
20	6280	0.2457	0.269	0.000	1.095
21	6430	0.2558	-	0.000	-
22	6580	0.2659	-	0.000	-
23	6780	0.2782	-	0.000	-
24	6980	0.2938	-	0.000	-
25	7130	0.3140	0.336	0.000	1.070
26	7210	0.3250	-	0.000	-
27	7360	0.3351	-	0.000	-
28	7460	0.3467	-	0.000	-
29	7560	0.3585	-	0.000	-
30	7660	0.3704	0.389	0.000	1.050
31	7750	0.3816	-	0.000	-
32	7900	0.3934	-	0.000	-
33	8050	0.4134	-	0.000	-
34	8150	0.4292	-	0.000	-
35	8300	0.4483	0.448	0.000	0.999
36	8390	0.4596	-	-	-
37	8690	0.5514	-	-	-

TABLE 1-85. CRACK GROWTH DATA FOR SPECIMEN ABPLC55

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	1000	0.0418	-	0.000	-
3	1500	0.0540	-	0.000	-
4	1850	0.0644	-	0.000	-
5	2150	0.0763	0.092	0.000	1.206
6	2350	0.0843	-	0.000	-
7	2650	0.0968	-	0.000	-
8	2900	0.1069	-	0.000	-
9	3150	0.1174	-	0.000	-
10	3400	0.1296	0.163	0.000	1.258
11	3680	0.1432	-	0.000	-
12	3880	0.1573	-	0.000	-
13	4080	0.1688	-	0.000	-
14	4230	0.1808	-	0.000	-
15	4330	0.1925	0.229	0.000	1.190
16	4390	0.2000	-	0.000	-
17	4590	0.2130	-	0.000	-
18	4740	0.2303	-	0.000	-
19	4840	0.2413	-	0.000	-
20	4940	0.2523	0.285	0.000	1.130
21	5040	0.2633	-	0.000	-
22	5190	0.2749	-	0.000	-
23	5290	0.2881	-	0.000	-
24	5390	0.2988	-	0.000	-
25	5540	0.3141	0.345	0.000	1.098
26	5670	0.3274	-	0.000	-
27	5770	0.3426	-	0.000	-
28	5820	0.3539	-	0.000	-
29	5870	0.3655	-	0.000	-
30	5970	0.3817	0.397	0.000	1.040
31	6050	0.3943	-	0.000	-
32	6150	0.4087	-	0.000	-
33	6200	0.4188	-	0.000	-
34	6250	0.4301	-	0.000	-
35	6300	0.4403	0.446	0.000	1.013
36	6330	0.4466	-	-	-
37	6480	0.4804	-	-	-
38	6630	0.4999	-	-	-
39	6780	0.5459	-	-	-
40	6930	0.6063	-	-	-
41	7080	0.6767	-	-	-
42	7230	0.7820	-	-	-
43	7330	0.9174	-	-	-
44	7350	0.9552	-	-	-
45	7360	0.9859	-	-	-
46	7380	1.0526	-	-	-
47	7390	1.1597	-	-	-

TABLE 1-86. CRACK GROWTH DATA FOR SPECIMEN ABPLC88

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	940	0.0447	-	0.000	-
3	1340	0.0572	-	0.000	-
4	1640	0.0676	-	0.000	-
5	1940	0.0803	0.086	0.000	1.071
6	2180	0.0906	-	0.000	-
7	2380	0.1008	-	0.000	-
8	2630	0.1115	-	0.000	-
9	2830	0.1216	-	0.000	-
10	3130	0.1319	0.149	0.000	1.130
11	3500	0.1446	-	0.000	-
12	3750	0.1573	-	0.000	-
13	4000	0.1674	-	0.000	-
14	4200	0.1816	-	0.000	-
15	4400	0.1957	0.219	0.000	1.119
16	4630	0.2116	-	0.000	-
17	4780	0.2241	-	0.000	-
18	5030	0.2364	-	0.000	-
19	5180	0.2489	-	0.000	-
20	5380	0.2592	0.305	0.000	1.177
21	5530	0.2668	-	0.000	-
22	5680	0.2827	-	0.000	-
23	5830	0.2970	-	0.000	-
24	5930	0.3138	-	0.000	-
25	6030	0.3256	0.371	0.000	1.139
26	6120	0.3363	-	0.000	-
27	6220	0.3476	-	0.000	-
28	6345	0.3611	-	0.000	-
29	6445	0.3729	-	0.000	-
30	6545	0.3863	0.432	0.000	1.118
31	6615	0.3955	-	-	-
32	6715	0.4136	-	-	-
33	6790	0.4237	-	-	-
34	6915	0.4400	-	-	-
35	7015	0.4523	(0.502)	0.042	(1.110)
36	7095	0.4625	-	-	-
37	7345	0.5124	-	-	-
38	7595	0.5708	-	-	-
39	7795	0.6216	-	-	-
40	7995	0.7362	-	-	-
41	8070	0.8068	-	-	-
42	8120	0.8462	-	-	-
43	8170	0.8918	-	-	-
44	8220	0.9660	-	-	-
45	8245	1.0425	-	-	-

TABLE 1-87. GROUP I BASELINE BLOCK SPECTRUM CRACK PROPAGATION TESTS

INITIAL FLAW TYPE		MATERIAL		SPECIMEN ID NO. PREFIX	$\sigma_{o \max}$ (i)	CYCLES PER BLOCK, N_B	$R_o/R_i =$			SPECIMEN ID NUMBER SUFFIXES	DATA IN TABLES
		ALUM.	STEEL				1.25	2.25	3.00		
X		X		ABPLS --	7.50	2500	X			29 70	1-88 1-89
								X		75 76	1-90 1-91
									X	97 101	1-92 1-93
			X	SBPLS --	17.50	2500	X			67 73	1-94 1-95
								X		75 77	1-96 1-97
									X	97 98	1-98 1-99
		X		ABPLS --	18.75	100	X			69 105	1-100 1-101
								X		77* 78	1-102 1-103
									X	95 96	1-104 1-105
							X			25 27	1-106 1-107
X		X		ABPLS --	7.50	7500		X		40 41	1-108 1-109
									X	58 98	1-110 1-111
							X			26 28	1-112 1-113
			X	SBPLS --	17.50	7500		X		38 41	1-114 1-115
									X	58 61**	1-116 1-117
							X			26 28	1-118 1-119
		X		ABPLS --	18.75	300		X		38 39	1-120 1-121
									X	59 61	1-122 1-123

* $\sigma_{o \max} = 21.0$ KSI INSTEAD OF 18.75 KSI DUE TO COMPUTER ERROR

** $N_B = 2500$ CYCLES PER BLOCK INSTEAD OF 7500 CYCLES

TABLE 1-88. CRACK GROWTH DATA FOR SPECIMEN ABPLS29

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.1095
2	1	0.1278
3	4	0.1350
4	8	0.1387
5	12	0.1477
6	16	0.1587
7	20	0.1690
8	24	0.1861
9	28	0.2051
10	32	0.2315

TABLE 1-89. CRACK GROWTH DATA FOR SPECIMEN ABPLS70

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0551
2	1	0.0673
3	4	0.0763
4	8	0.0832
5	12	0.0960
6	16	0.1093
7	20	0.1275
8	24	0.1404
9	28	0.1578
10	32	0.1805
11	36	0.2060
12	40	0.2376
13	44	0.2823

TABLE 1-90. CRACK GROWTH DATA FOR SPECIMEN ABPLS75

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.1170
2	1	0.1391
3	4	0.1447
4	8	0.1583
5	12	0.1744
6	16	0.1896
7	20	0.2071
8	24	0.2266
9	28	0.2431
10	32	0.2595
11	36	0.2759
12	40	0.2971
13	44	0.3198
14	48	0.3375
15	52	0.3624
16	56	0.3782
17	60	0.4033
18	64	0.4224
19	68	0.4479
20	72	0.4707
21	76	0.4945
22	80	0.5241
23	84	0.5574
24	88	0.5852
25	92	0.6095
26	96	0.6415
27	100	0.6772
28	104	0.7223
29	108	0.7646

TABLE 1-91. CRACK GROWTH DATA FOR SPECIMEN ABPLS76

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.1136
2	1	0.1381
3	5	0.1531
4	10	0.1705
5	15	0.1942
6	20	0.2161
7	25	0.2469
8	30	0.2714
9	35	0.2990
10	40	0.3279
11	45	0.3568
12	50	0.3908
13	55	0.4216
14	60	0.4474
15	65	0.4847
16	70	0.5172
17	75	0.5548
18	80	0.5916
19	85	0.6276
20	90	0.6709
21	95	0.7229
22	100	0.7928

TABLE 1-92. CRACK GROWTH DATA FOR SPECIMEN ABPLS97

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.1058
2	1	0.1235
3	5	0.1334
4	10	0.1460
5	15	0.1653
6	20	0.1800
7	25	0.1966
8	30	0.2150
9	35	0.2354
10	40	0.2538
11	50	0.2881
12	60	0.3247
13	70	0.3605
14	80	0.3972
15	90	0.4398
16	100	0.4804
17	110	0.5326
18	120	0.5680
19	130	0.6180
20	140	0.6669
21	150	0.7127
22	160	0.7647
23	170	0.8204
24	180	0.8697
25	190	0.9294
26	200	1.0021
27	210	1.0736
28	220	1.1410
29	230	1.2237

TABLE 1-93. CRACK GROWTH DATA FOR SPECIMEN ABPLS101

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.1042
2	1	0.1197
3	5	0.1317
4	10	0.1480
5	15	0.1589
6	20	0.1776
7	25	0.2041
8	30	0.2200
9	35	0.2449
10	40	0.2596
11	50	0.2995
12	60	0.3330
13	70	0.3762
14	80	0.4135
15	90	0.4547
16	100	0.4960
17	110	0.5400
18	120	0.5840
19	130	0.6305
20	140	0.6812
21	150	0.7351
22	160	0.7909
23	170	0.8434
24	180	0.9033
25	190	0.9521
26	200	1.0051
27	210	1.0557
28	220	1.1315
29	230	1.2247

TABLE 1-94. CRACK GROWTH DATA FOR SPECIMEN SBPLS67

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0517
2	1	0.0774
3	4	0.1010
4	8	0.1412
5	12	0.1956
6	16	0.2786

TABLE 1-95. CRACK GROWTH DATA FOR SPECIMEN SBPLS73

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0560
2	1	0.0706
3	4	0.0900
4	8	0.1092
5	12	0.1455
6	16	0.1866
7	20	0.2325

TABLE 1-96. CRACK GROWTH DATA FOR SPECIMEN SBPLS75

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.1071
2	1	0.1458
3	5	0.1651
4	10	0.1912
5	15	0.2177
6	20	0.2492
7	25	0.2765
8	30	0.3068
9	35	0.3408
10	40	0.3705
11	45	0.4048
12	50	0.4404
13	55	0.4776
14	60	0.5135
15	65	0.5503
16	70	0.5979
17	75	0.6403
18	80	0.6977
19	85	0.7580

TABLE 1-97. CRACK GROWTH DATA FOR SPECIMEN SBPLS77

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0776
2	1	0.0942
3	5	0.1104
4	10	0.1268
5	15	0.1459
6	20	0.1682
7	25	0.1911
8	30	0.2155
9	35	0.2389
10	40	0.2622
11	45	0.2899
12	50	0.3147
13	55	0.3418
14	60	0.3701
15	65	0.3965
16	70	0.4247
17	75	0.4542
18	80	0.4832
19	85	0.5139
20	90	0.5463
21	95	0.5826
22	100	0.6180
23	105	0.6618
24	110	0.7086
25	115	0.7685

TABLE 1-98. CRACK GROWTH DATA FOR SPECIMEN SBPLS97

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0708
2	1	0.0917
3	5	0.1062
4	10	0.1223
5	15	0.1411
6	20	0.1637
7	25	0.1846
8	30	0.2063
9	35	0.2293
10	40	0.2518
11	50	0.2978
12	60	0.3445
13	70	0.3872
14	80	0.4367
15	90	0.4796
16	100	0.5263
17	110	0.5732
18	120	0.6176
19	130	0.6681
20	140	0.7120
21	150	0.7633
22	160	0.8130
23	170	0.8627
24	180	0.9169
25	190	0.9718
26	200	1.0335
27	210	1.1008
28	220	1.1797

TABLE 1-99. CRACK GROWTH DATA FOR SPECIMEN SBPLS98

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.1010
2	1	0.1161
3	5	0.1313
4	10	0.1499
5	15	0.1693
6	20	0.1911
7	25	0.2150
8	30	0.2365
9	35	0.2581
10	40	0.2831
11	50	0.3283
12	60	0.3752
13	70	0.4211
14	80	0.4707
15	90	0.5147
16	100	0.5634
17	110	0.6091
18	120	0.6650
19	130	0.7099
20	140	0.7586
21	150	0.8098
22	160	0.8619
23	170	0.9179
24	180	0.9768
25	190	1.0389
26	200	1.1127
27	210	1.1977

TABLE 1-100. CRACK GROWTH DATA FOR SPECIMEN ABPLS69

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0171
2	1	0.0390
3	2	0.0506
4	4	0.0584
5	6	0.0681
6	8	0.0840

TABLE 1-101. CRACK GROWTH DATA FOR SPECIMEN ABPLS105

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0197
2	1	0.0247
3	2	0.0276
4	4	0.0286
5	8	0.0299
6	12	0.0317
7	16	0.0344
8	20	0.0371
9	25	0.0396
10	30	0.0427
11	35	0.0454
12	40	0.0504
13	45	0.0564
14	50	0.0622
15	55	0.0707
16	59	0.0771
17	60	0.0809
18	61	0.0819
19	62	0.0910
20	63	0.0958
21	64	0.1025
22	65	0.1085
23	66	0.1282

TABLE 1-102. CRACK GROWTH DATA FOR SPECIMEN ABPLS77 *

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0241
2	1	0.0289
3	5	0.0353
4	10	0.0457
5	15	0.0519
6	20	0.0556
7	25	0.0612
8	30	0.0641
9	35	0.0677
10	40	0.0751
11	45	0.0802
12	50	0.0858
13	55	0.0906
14	60	0.0950
15	65	0.1054
16	70	0.1139
17	75	0.1208
18	80	0.1444
19	85	0.2510
20	86	0.2804
21	87	0.3318
22	88	0.4662

* $\sigma_1 = 21.0$ KSI INSTEAD OF 18.75 KSI DUE TO COMPUTER ERROR

TABLE 1-103 CRACK GROWTH DATA FOR SPECIMEN ABPLS78

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0420
2	1	0.0508
3	2	0.0541
4	4	0.0603
5	6	0.0643
6	8	0.0690
7	10	0.0720
8	14	0.0782
9	18	0.0836
10	22	0.0898
11	26	0.0979
12	30	0.1037
13	34	0.1124
14	38	0.1158
15	42	0.1334
16	46	0.1452
17	50	0.1758
18	51	0.2233
19	52	0.2615
20	53	0.2982
21	54	0.3574
22	55	0.3848
23	56	0.4550

TABLE 1-104. CRACK GROWTH DATA FOR SPECIMEN ABPLS95

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0201
2	1	0.0269
3	4	0.0339
4	8	0.0383
5	12	0.0416
6	16	0.0448
7	20	0.0502
8	24	0.0527
9	28	0.0552
10	32	0.0606
11	36	0.0646
12	40	0.0683
13	44	0.0712
14	48	0.0754
15	52	0.0812
16	56	0.0864
17	60	0.0905
18	64	0.0951
19	68	0.0998
20	72	0.1057
21	76	0.1120
22	80	0.1180
23	84	0.1271
24	88	0.1424
25	92	0.1958
26	94	0.2224
27	96	0.2570
28	98	0.2850
29	100	0.3192
30	102	0.3710
31	104	0.3892
32	106	0.4166
33	108	0.4588
34	110	0.4954
35	112	0.5316
36	114	0.5655
37	115	0.5917
38	116	0.6081
39	117	0.6225
40	118	0.6455
41	119	0.6661
42	120	0.6892
43	121	0.7180
44	122	0.7411
45	123	0.7682
46	124	0.8248
47	125	0.9188

TABLE 1-105. CRACK GROWTH DATA FOR SPECIMEN ABPLS96 *

LINE NO.	N (BLOCKS)	c (IN.)
1	0	0.0256
2	1	0.0308
3	5	0.0386
4	10	0.0445
5	15	0.0511
6	20	0.0581
7	25	0.0645
8	30	0.0699
9	35	0.0786
10	40	0.0876
11	45	0.1074
12	50	0.1124
13	55	0.1277
14	60	0.1685
15	65	0.3242
16	68	0.3878
17	70	0.4431
18	72	0.5167
19	74	0.6391
20	75	0.7033
21	76	0.7980

* SIGNIFICANT CRACK LENGTH INCREASE AND CRACK TUNNELLING
BETWEEN BLOCKS 60 AND 65

TABLE 1-106. CRACK GROWTH DATA FOR SPECIMEN ABPLS25

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0498	0.0498	0.000	1.000
2	1	0.0622	-	0.000	-
3	2	0.0639	-	0.000	-
4	4	0.0687	-	0.000	-
5	6	0.0741	-	0.000	-
6	8	0.0818	-	0.000	-
7	10	0.0920	-	0.000	-
8	12	0.1074	-	0.000	-
9	14	0.1229	-	0.000	-
10	16	0.1370	-	0.000	-
11	18	0.1441	-	0.000	-
12	20	0.1596	-	0.000	-
13	22	0.1684	-	0.000	-
14	24	0.1806	-	0.000	-
15	26	0.1892	-	0.000	-
16	28	0.2063	-	0.000	-
17	30	0.2268	-	0.000	-
18	32	0.2405	-	0.000	-
19	34	0.2535	-	0.000	-
20	36	0.2803	-	0.000	-
21	38	0.2949	-	0.000	-
22	40	0.3178	-	0.000	-
23	42	0.3750	-	0.000	-

TABLE 1-107. CRACK GROWTH DATA FOR SPECIMEN ABPLS27

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0660	0.0660	0.000	1.000
2	1	0.1154	-	0.000	-
3	4	0.1672	-	0.000	-
4	6	0.2025	-	0.000	-
5	8	0.2513	-	0.000	-
6	10	0.3198	-	0.000	-

TABLE 1-108. CRACK GROWTH DATA FOR SPECIMEN ABPLS40

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0414	0.0414	0.0000	1.000
2	1	0.0494	-	0.0000	-
3	4	0.0536	-	0.0000	-
4	8	0.0604	-	0.0000	-
5	12	0.0654	-	0.0000	-
6	16	0.0717	-	0.0000	-
7	20	0.0779	-	0.0000	-
8	24	0.0889	-	0.0000	-
9	28	0.0909	-	0.0000	-
10	32	0.0983	-	0.0000	-
11	36	0.1069	-	0.0000	-
12	40	0.1173	-	0.0000	-
13	44	0.1237	-	0.0000	-
14	48	0.1329	-	0.0000	-
15	52	0.1394	-	0.0000	-
16	56	0.1498	-	0.0000	-
17	60	0.1519	-	0.0000	-
18	64	0.1723	-	0.0000	-
19	68	0.1820	-	0.0000	-
20	72	0.1960	-	0.0000	-
21	76	0.2102	-	0.0000	-
22	80	0.2156	-	0.0000	-
23	84	0.2383	-	0.0000	-
24	88	0.2547	-	0.0000	-
25	92	0.2636	-	0.0000	-
26	96	0.2806	-	0.0000	-
27	100	0.2946	-	0.0000	-
28	104	0.3061	(0.537)	0.1114	(1.754)
29	108	0.3248	(0.570)	0.1558	(1.754)
30	112	0.3382	(0.595)	0.1833	(1.759)
31	116	0.3567	(0.629)	0.2167	(1.765)
32	120	0.3778	(0.663)	0.2482	(1.755)
33	124	0.3964	(0.709)	0.2809	(1.788)
34	128	0.4133	(0.762)	0.3118	(1.843)
35	132	0.4409	(0.822)	0.3499	(1.864)
36	136	0.4605	(0.851)	0.3727	(1.849)
37	140	0.4772	(0.944)	0.4047	(1.977)
38	144	0.4998	(0.936)	0.4226	(1.874)
39	148	0.5178	(1.495)	0.4880	(2.888)
40	152	0.5413	(1.813)	0.5203	(3.349)
41	156	0.5791	(1.769)	0.5555	(3.056)
42	160	0.6085	(2.195)	0.5925	(3.607)
43	164	0.6291	(2.296)	0.6140	(3.649)
44	168	0.6644	(3.082)	0.6556	(4.639)
45	172	0.6836	-	0.6984	-
46	176	0.7256	-	0.7372	-
47	180	0.7767	-	0.7992	-

TABLE 1-109. CRACK GROWTH DATA FOR SPECIMEN ABPLS41

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0451	0.0451	0.0000	1.000
2	1	0.0616	-	0.0000	-
3	4	0.0945	-	0.0000	-
4	8	0.1267	-	0.0000	-
5	12	0.1596	-	0.0000	-
6	16	0.1901	-	0.0000	-
7	20	0.2220	-	0.0000	-
8	24	0.2559	-	0.0000	-
9	28	0.2893	-	0.0000	-
10	32	0.3245	-	0.0000	-
11	36	0.3737	-	0.0000	-
12	40	0.4080	(0.581)	0.2081	(1.425)
13	44	0.4516	(0.633)	0.2771	(1.402)
14	48	0.4947	(0.703)	0.3476	(1.420)
15	52	0.5454	(0.741)	0.4023	(1.358)
16	56	0.5978	(0.800)	0.4666	(1.338)
17	60	0.6597	(0.849)	0.5330	(1.286)
18	64	0.7180	(0.978)	0.6171	(1.362)
19	68	0.7961	(1.039)	0.6978	(1.305)

TABLE 1-110. CRACK GROWTH DATA FOR SPECIMEN ABPLS58

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0450	0.0450	0.0000	1.000
2	1	0.0675	-	0.0000	-
3	4	0.0811	-	0.0000	-
4	8	0.1028	-	0.0000	-
5	12	0.1228	-	0.0000	-
6	16	0.1442	-	0.0000	-
7	20	0.1631	-	0.0000	-
8	24	0.1850	-	0.0000	-
9	28	0.2048	-	0.0000	-
10	32	0.2291	-	0.0000	-
11	36	0.2493	-	0.0000	-
12	40	0.2715	-	0.0000	-
13	44	0.2952	-	0.0000	-
14	48	0.3219	-	0.0000	-
15	52	0.3462	(0.537)	0.1268	(1.552)
16	56	0.3719	(0.579)	0.1871	(1.556)
17	60	0.4015	(0.608)	0.2283	(1.514)
18	64	0.4272	(0.649)	0.2721	(1.518)
19	68	0.4544	(0.678)	0.3068	(1.492)
20	72	0.4893	(0.708)	0.3464	(1.447)
21	76	0.5066	(0.781)	0.3890	(1.541)
22	80	0.5353	(0.797)	0.4169	(1.489)
23	84	0.5617	(0.856)	0.4560	(1.524)
24	88	0.5809	(0.895)	0.4818	(1.541)
25	92	0.6085	(0.898)	0.5054	(1.475)
26	96	0.6419	(0.950)	0.5457	(1.479)
27	100	0.6608	(1.020)	0.5759	(1.543)
28	104	0.6867	(1.076)	0.6081	(1.567)
29	108	0.7047	(1.114)	0.6297	(1.581)
30	112	0.7384	(1.125)	0.6614	(1.523)
31	116	0.7743	(1.227)	0.7071	(1.585)
32	120	0.8027	(1.151)	0.7230	(1.434)
33	124	0.8325	(1.258)	0.7639	(1.511)
34	128	0.8566	(1.388)	0.7991	(1.620)
35	132	0.8926	(1.368)	0.8308	(1.532)
36	136	0.9182	(1.468)	0.8633	(1.599)
37	140	0.9296	(1.874)	0.8959	(2.016)
38	144	0.9785	(1.575)	0.9279	(1.610)
39	148	1.0097	(1.788)	0.9694	(1.770)
40	152	1.0430	(1.941)	1.0078	(1.361)
41	156	1.0849	(2.251)	1.0578	(2.075)
42	160	1.1259	(2.726)	1.1068	(2.421)
43	164	1.1663	(5.762)	1.1619	(4.940)

TABLE 1-111. CRACK GROWTH DATA FOR SPECIMEN ABPLS98

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0373	0.0373	0.0000	1.000
2	1	0.0581	-	0.0000	-
3	2	0.0676	-	0.0000	-
4	4	0.0840	-	0.0000	-
5	8	0.1089	-	0.0000	-
6	12	0.1376	-	0.0000	-
7	16	0.1546	-	0.0000	-
8	20	0.1860	-	0.0000	-
9	24	0.2128	-	0.0000	-
10	28	0.2437	-	0.0000	-
11	32	0.2667	-	0.0000	-
12	36	0.2872	-	0.0000	-
13	40	0.3230	-	0.0000	-
14	44	0.3426	-	0.0000	-
15	48	0.3743	-	0.0000	-
16	52	0.3935	(0.584)	0.2037	(1.485)
17	56	0.4190	(0.672)	0.2797	(1.603)
18	60	0.4480	(0.751)	0.3343	(1.676)
19	65	0.4773	(0.889)	0.3946	(1.862)
20	70	0.5089	(1.056)	0.4483	(2.076)
21	75	0.5441	(1.340)	0.5048	(2.463)
22	80	0.5797	(1.601)	0.5507	(2.762)
23	85	0.6135	(2.980)	0.6048	(4.857)
24	90	0.6485	-	0.6504	-
25	95	0.6793	-	0.0756	-
26	100	0.7275	-	0.7565	-
27	105	0.7872	-	0.8201	-
28	110	0.8441	-	0.8818	-
29	115	0.8921	-	0.9557	-
30	120	0.9563	-	1.0273	-
31	125	1.0277	-	1.1003	-
32	129	1.0872	-	1.1533	-
33	130	1.1049	-	-	-
34	131	1.1280	-	-	-
35	132	1.1474	-	-	-
36	133	1.1709	-	-	-
37	134	1.2015	-	-	-

TABLE 1-112. CRACK GROWTH DATA FOR SPECIMEN SBPLS26

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0458	0.0458	0.0000	1.000
2	1	0.0749	-	0.0000	-
3	4	0.1055	-	0.0000	-
4	8	0.1694	-	0.0000	-
5	12	0.2648	-	0.0000	-
6	13	0.3298	(0.593)	0.1771	(1.797)

TABLE 1-113. CRACK GROWTH DATA FOR SPECIMEN SBPLS28

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0390	0.0390	0.0000	1.000
2	1	0.0461	-	0.0000	-
3	2	0.0486	-	0.0000	-
4	4	0.0524	-	0.0000	-
5	6	0.0575	-	0.0000	-
6	8	0.0619	-	0.0000	-
7	10	0.0683	-	0.0000	-
8	12	0.0757	-	0.0000	-
9	14	0.0830	-	0.0000	-
10	16	0.0933	-	0.0000	-
11	18	0.1036	-	0.0000	-
12	20	0.1152	-	0.0000	-
13	22	0.1262	-	0.0000	-
14	24	0.1404	-	0.0000	-
15	26	0.1573	-	0.0000	-
16	28	0.1753	-	0.0000	-
17	30	0.1946	-	0.0000	-
18	32	0.2174	-	0.0000	-
19	34	0.2454	-	0.0000	-
20	36	0.2875	(0.508)	0.0519	(1.768)

TABLE 1-114. CRACK GROWTH DATA FOR SPECIMEN SBPLS38

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0609	0.0609	0.0000	1.000
2	1	0.0796	-	0.0000	-
3	4	0.0950	-	0.0000	-
4	8	0.1234	-	0.0000	-
5	12	0.1537	-	0.0000	-
6	16	0.1943	-	0.0000	-
7	20	0.2328	-	0.0000	-
8	24	0.2822	-	0.0000	-
9	28	0.3381	-	0.0000	-
10	32	0.4030	(0.559)	0.1807	(1.388)
11	36	0.4755	(0.686)	0.3254	(1.442)
12	40	0.5552	(0.836)	0.4451	(1.507)
13	44	0.6482	(1.040)	0.5684	(1.605)
14	48	0.7653	(1.485)	0.7206	(1.940)

TABLE 1-115. CRACK GROWTH DATA FOR SPECIMEN SBPLS41

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a / c
1	0	0.0433	0.0433	0.0000	1.000
2	1	0.0559	-	0.0000	-
3	4	0.0649	-	0.0000	-
4	8	0.0776	-	0.0000	-
5	12	0.0915	-	0.0000	-
6	16	0.1125	-	0.0000	-
7	20	0.1312	-	0.0000	-
8	24	0.1539	-	0.0000	-
9	28	0.1818	-	0.0000	-
10	32	0.2103	-	0.0000	-
11	36	0.2421	-	0.0000	-
12	40	0.2757	-	0.0000	-
13	44	0.3160	-	0.0000	-
14	48	0.3589	(0.594)	0.1937	(1.655)
15	52	0.4075	(0.693)	0.2822	(1.701)
16	56	0.4610	(0.806)	0.3616	(1.749)
17	60	0.5196	(0.943)	0.4405	(1.814)
18	64	0.5845	(1.099)	0.5205	(1.880)
19	68	0.6615	(1.379)	0.6165	(2.085)
20	72	0.7823	(1.835)	0.7527	(2.346)

TABLE 1-116. CRACK GRCWTH DATA FOR SPECIMEN SBPLS58

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0542	0.0542	0.0000	1.000
2	1	0.0646	-	0.0000	-
3	4	0.0729	-	0.0000	-
4	8	0.0841	-	0.0000	-
5	12	0.0983	-	0.0000	-
6	16	0.1172	-	0.0000	-
7	20	0.1392	-	0.0000	-
8	24	0.1622	-	0.0000	-
9	28	0.1931	-	0.0000	-
10	32	0.2248	-	0.0000	-
11	36	0.2599	-	0.0000	-
12	40	0.2979	-	0.0000	-
13	44	0.3422	-	0.0000	-
14	48	0.3858	(0.504)	0.0491	(1.307)
15	52	0.4296	(0.594)	0.2318	(1.382)
16	56	0.4824	(0.675)	0.3240	(1.399)
17	60	0.5305	(0.767)	0.4024	(1.446)
18	64	0.5833	(0.866)	0.4763	(1.485)
19	68	0.6380	(0.939)	0.5401	(1.472)
20	72	0.6984	(1.022)	0.6091	(1.463)
21	76	0.7558	(1.094)	0.6723	(1.448)
22	80	0.8124	(1.209)	0.7397	(1.488)
23	84	0.8713	(1.322)	0.8066	(1.518)
24	88	0.9415	(1.374)	0.8769	(1.459)
25	92	1.0075	(1.549)	0.9536	(1.538)
26	96	1.0902	(1.609)	1.0362	(1.476)
27	100	1.1807	(1.952)	1.1413	(1.653)

TABLE 1-117. CRACK GROWTH DATA FOR SPECIMEN SBPLS61 *

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0512	0.0512	0.0000	1.000
2	5	0.0690	-	-	-
3	10	0.0726	-	-	-
4	15	0.0773	-	-	-
5	20	0.0826	-	-	-
6	25	0.0889	-	-	-
7	30	0.0948	-	-	-
8	35	0.1018	-	-	-
9	40	0.1099	-	-	-
10	45	0.1167	-	-	-
11	50	0.1231	-	-	-
12	55	0.1302	-	-	-
13	60	0.1389	-	-	-
14	65	0.1490	-	-	-
15	70	0.1567	-	-	-
16	75	0.1664	-	-	-
17	80	0.1785	-	-	-
18	85	0.1877	-	-	-
19	90	0.1970	-	-	-
20	95	0.2082	-	-	-
21	100	0.2205	-	-	-
22	105	0.2319	-	-	-
23	110	0.2432	-	-	-
24	115	0.2555	-	-	-
25	120	0.2686	-	-	-
26	125	0.2821	-	-	-
27	130	0.2954	-	-	-
28	135	0.3091	-	-	-
29	140	0.3240	-	-	-
30	145	0.3394	-	-	-
31	150	0.3547	-	-	-
32	155	0.3677	-	-	-
33	160	0.3849	-	-	-
34	165	0.4009	-	-	-
35	170	0.4198	-	-	-
36	175	0.4352	-	-	-
37	180	0.4513	-	-	-
38	185	0.4734	-	-	-
39	190	0.4921	-	-	-
40	195	0.5074	-	-	-
41	200	0.5294	-	-	-
42	205	0.5444	-	-	-
43	210	0.5644	-	-	-
44	215	0.5823	-	-	-
45	220	0.6013	-	-	-
46	225	0.6201	-	-	-

TABLE 1-117. CRACK GROWTH DATA FOR SPECIMEN SBPLS61 (CON'T)

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
47	230	0.6402	-	-	-
48	235	0.6599	-	-	-
49	240	0.6792	-	-	-
50	245	0.7009	-	-	-
51	250	0.7209	-	-	-
52	255	0.7435	-	-	-
53	260	0.7645	-	-	-
54	265	0.7828	-	-	-
55	270	0.8051	-	-	-
56	275	0.8284	-	-	-
57	280	0.8495	-	-	-
58	285	0.8711	-	-	-
59	290	0.8980	-	-	-
60	295	0.9178	-	-	-
61	300	0.9445	-	-	-
62	305	0.9732	-	-	-
63	310	0.9945	-	-	-
64	315	1.0232	-	-	-
65	320	1.0495	-	-	-
66	325	1.0772	-	-	-
67	330	1.1021	-	-	-
68	335	1.1385	-	-	-
69	340	1.1713	-	-	-
70	345	1.2071	-	-	-
71	350	1.2435	-	-	-

* NUMBER OF CYCLES PER BLOCK IS 2500 INSTEAD OF 7500

TABLE 1-118. CRACK GROWTH DATA FOR SPECIMEN ABPLS26

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0397	0.0397	0.0000	1.000
2	1	0.0450	-	0.0000	-
3	5	0.0482	-	0.0000	-
4	10	0.0551	-	0.0000	-
5	20	0.0596	-	0.0000	-
6	30	0.0628	-	0.0000	-
7	40	0.0686	-	0.0000	-
8	50	0.0725	-	0.0000	-
9	60	0.0773	-	0.0000	-
10	70	0.0808	-	0.0000	-
11	80	0.0843	-	0.0000	-
12	100	0.0927	-	0.0000	-
13	120	0.1022	-	0.0000	-
14	140	0.1119	-	0.0000	-
15	160	0.1238	-	0.0000	-
16	180	0.1403	-	0.0000	-
17	200	0.1720	-	0.0000	-

TABLE 1-119. CRACK GROWTH DATA FOR SPECIMEN ABPLS28

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0331	0.0331	0.0000	1.000
2	1	0.0373	-	0.0000	-
3	5	0.0418	-	0.0000	-
4	10	0.0424	-	0.0000	-
5	20	0.0492	-	0.0000	-
6	40	0.0554	-	0.0000	-
7	60	0.0681	-	0.0000	-
8	80	0.0744	-	0.0000	-
9	100	0.0853	-	0.0000	-
10	120	0.0930	-	0.0000	-
11	140	0.1057	-	0.0000	-
12	160	0.1250	-	0.0000	-
13	180	0.1641	(0.543)	0.0637	(3.306)

TABLE 1-120. CRACK GROWTH DATA FOR SPECIMEN ABPLS38

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0337	0.0337	0.0000	1.000
2	1	0.0382	-	0.0000	-
3	4	0.0441	-	0.0000	-
4	8	0.0510	-	0.0000	-
5	12	0.0571	-	0.0000	-
6	16	0.0587	-	0.0000	-
7	20	0.0631	-	0.0000	-
8	24	0.0649	-	0.0000	-
9	28	0.0676	-	0.0000	-
10	32	0.0753	-	0.0000	-
11	36	0.0778	-	0.0000	-
12	40	0.0803	-	0.0000	-
13	44	0.0849	-	0.0000	-
14	48	0.0912	-	0.0000	-
15	52	0.0972	-	0.0000	-
16	56	0.1019	-	0.0000	-
17	60	0.1045	-	0.0000	-
18	64	0.1114	-	0.0000	-
19	68	0.1158	-	0.0000	-
20	72	0.1222	-	0.0000	-
21	76	0.1287	-	0.0000	-
22	80	0.1320	-	0.0000	-
23	84	0.1425	-	0.0000	-
24	88	0.1512	-	0.0000	-
25	92	0.1551	-	0.0000	-
26	96	0.1676	-	0.0000	-
27	100	0.1747	-	0.0000	-
28	104	0.1907	-	0.0000	-
29	108	0.2022	-	0.0000	-
30	112	0.2156	-	0.0000	-
31	116	0.2270	-	0.0000	-
32	120	0.2445	-	0.0000	-
33	124	0.2692	-	0.0000	-
34	128	0.2920	-	0.0000	-
35	132	0.3112	-	0.0000	-
36	136	0.3447	-	0.0000	-
37	140	0.3906	(0.500)	0.0151	(1.281)
38	142	0.4187	(0.504)	0.0556	(1.205)
39	144	0.4566	(0.528)	0.1462	(1.156)
40	146	0.4868	(0.559)	0.2171	(1.148)
41	148	0.5388	(0.599)	0.2970	(1.112)
42	150	0.6294	(0.694)	0.4365	(1.103)

TABLE 1-121. CRACK GROWTH DATA FOR SPECIMEN ABPLS39

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0465	0.0465	0.0000	1.000
2	1	0.0553	-	0.0000	-
3	5	0.0636	-	0.0000	-
4	10	0.0690	-	0.0000	-
5	15	0.0734	-	0.0000	-
6	20	0.0772	-	0.0000	-
7	25	0.0820	-	0.0000	-
8	30	0.0855	-	0.0000	-
9	35	0.0909	-	0.0000	-
10	40	0.0938	-	0.0000	-
11	45	0.0954	-	0.0000	-
12	50	0.1049	-	0.0000	-
13	55	0.1111	-	0.0000	-
14	60	0.1181	-	0.0000	-
15	65	0.1203	-	0.0000	-
16	70	0.1244	-	0.0000	-
17	75	0.1311	-	0.0000	-
18	80	0.1407	-	0.0000	-
19	85	0.1489	-	0.0000	-
20	90	0.1552	-	0.0000	-
21	95	0.1616	-	0.0000	-
22	100	0.1726	-	0.0000	-
23	105	0.1794	-	0.0000	-
24	110	0.1897	-	0.0000	-
25	115	0.2019	-	0.0000	-
26	120	0.2250	-	0.0000	-
27	125	0.2436	-	0.0000	-
28	130	0.2585	-	0.0000	-
29	135	0.2762	-	0.0000	-
30	140	0.3037	-	0.0000	-
31	145	0.3562	(0.501)	0.0186	(1.406)
32	148	0.3828	(0.509)	0.0734	(1.331)
33	150	0.4149	(0.621)	0.2458	(1.496)
34	152	0.4728	(0.776)	0.3616	(1.641)

TABLE 1-122. CRACK GROWTH DATA FOR SPECIMEN ABPLS59

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0353	0.0353	0.0000	1.000
2	1	0.0456	-	0.0000	-
3	5	0.0527	-	0.0000	-
4	10	0.0554	-	0.0000	-
5	15	0.0622	-	0.0000	-
6	20	0.0676	-	0.0000	-
7	25	0.0725	-	0.0000	-
8	30	0.0784	-	0.0000	-
9	40	0.0933	-	0.0000	-
10	50	0.1098	-	0.0000	-
11	60	0.1206	-	0.0000	-
12	70	0.1406	-	0.0000	-
13	80	0.1708	-	0.0000	-
14	90	0.2082	-	0.0000	-
15	100	0.2792	-	0.0000	-
16	105	0.3228	-	0.0000	-
17	110	0.3864	-	0.0000	-
18	115	0.4947	(0.500)	0.0166	(1.011)
19	120	0.6949	(0.573)	0.3400	(0.825)

TABLE 1-123. CRACK GROWTH DATA FOR SPECIMEN ABPLS61

LINE NO.	N (BLOCKS)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0305	0.0305	0.0000	1.000
2	1	0.0346	-	0.0000	-
3	5	0.0429	-	0.0000	-
4	10	0.0503	-	0.0000	-
5	15	0.0547	-	0.0000	-
6	20	0.0612	-	0.0000	-
7	25	0.0664	-	0.0000	-
8	30	0.0738	-	0.0000	-
9	35	0.0775	-	0.0000	-
10	40	0.0818	-	0.0000	-
11	45	0.0864	-	0.0000	-
12	50	0.0938	-	0.0000	-
13	55	0.0977	-	0.0000	-
14	60	0.1087	-	0.0000	-
15	65	0.1163	-	0.0000	-
16	70	0.1237	-	0.0000	-
17	75	0.1284	-	0.0000	-
18	80	0.1345	-	0.0000	-
19	85	0.1549	-	0.0000	-
20	90	0.1732	-	0.0000	-
21	95	0.1996	-	0.0000	-
22	100	0.2307	-	0.0000	-
23	105	0.2664	-	0.0000	-
24	110	0.3080	-	0.0000	-
25	115	0.3743	-	0.0000	-
26	120	0.4471	(0.500)	0.0130	(1.119)
27	125	0.5806	(0.606)	0.3281	(1.044)
28	126	0.6197	(0.662)	0.4063	(1.069)
29	127	0.6836	(0.733)	0.5000	(1.073)
30	128	0.7713	(0.872)	0.6319	(1.131)
31	129	0.9134	(0.966)	0.7814	(1.057)

TABLE 1-124. GROUP I BASELINE FLIGHT-BY-FLIGHT SPECTRUM CRACK PROPAGATION TESTS

MATERIAL AND SPECIMEN ID NO. PREFIX	INITIAL FLAW TYPE		SPECTRUM NO. *			$R_o/R_i =$			SPECIMEN ID NUMBER SUFFIXES	DATA IN TABLES	
	THRU	CORNER	1	2	3	1.50	2.25	3.00			
4340 STEEL (180-200 KSI)	X		X			X			70 65	1-125	1-126
							X		78 94	1-127	1-128
								X	96 95	1-129	1-130
						X			66 69	1-131	1-132
				X			X		76 46	1-133	1-134
								X	86 103	1-135	1-136
						X			64 68	1-137	1-138
					X		X		49 93	1-139	1-140
								X	84 87	1-141	1-142
						X			25 22	1-143	1-144
SBPLS --		X	X				X		36 35	1-145	1-146
								X	56 54	1-147	1-148
						X			21 99	1-149	1-150
				X			X		39 100	1-151	1-152
								X	101 102	1-153	1-154
						X			24 23	1-155	1-156
					X		X		33 40	1-157	1-158
								X	59 6	1-159	1-160

*SPECTRUM NO. 1. CARGO SPECTRUM - TABLES A-2 AND A-3 IN APPENDIX A
 2. SEVERE CARGO SPECTRUM = 1.5 X SPECTRUM NO. 1
 3. FIGHTER SPECTRUM - TABLES A-4 AND A-5 IN APPENDIX A

TABLE 1-125. CRACK GROWTH DATA FOR SPECIMEN SBPLS70

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.3354	0.0320
3	1.3354	0.0668
4	2.3354	0.1233
5	5.3354	0.2051

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-126. CRACK GROWTH DATA FOR SPECIMEN SBPLS65

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.3410	0.0339
3	1.3410	0.0828
4	2.3410	0.1854

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-127. CRACK GROWTH DATA FOR SPECIMEN SBPLS78

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.5582	0.0408
3	0.8499	0.0527
4	1.5582	0.0878
5	2.5582	0.1552
6	3.5582	0.2285
7	4.5582	0.3022
8	5.5582	0.3866
9	6.5582	0.4757
10	7.5582	0.5470
11	8.5582	0.6993

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-128. CRACK GROWTH DATA FOR SPECIMEN SBPLS94

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.5972	0.0359
3	1.5972	0.0658
4	2.5972	0.1141
5	3.5972	0.1775
6	5.5972	0.3161
7	6.5972	0.3904
8	7.5972	0.4689
9	8.5972	0.5543
10	9.5972	0.6563
11	10.5972	0.8478

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-129. CRACK GROWTH DATA FOR SPECIMEN SBPLS96

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.6893	0.0553
3	2.6893	0.1225
4	3.6893	0.1856
5	4.6893	0.2511
6	6.6893	0.3925
7	7.6893	0.4594
8	8.6893	0.5289
9	10.6893	0.6731
10	11.6893	0.7484
11	12.6893	0.8286
12	14.6893	1.0138
13	15.6893	1.1303

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-130. CRACK GROWTH DATA FOR SPECIMEN SBPLS95

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	1.4202	0.0580
3	2.4202	0.1049
4	4.4202	0.2453
5	5.4202	0.3170
6	6.4202	0.3850
7	8.4202	0.5248
8	9.4202	0.5935
9	10.4202	0.6623
10	12.4202	0.8081
11	13.4202	0.8901
12	14.4202	0.9800
13	15.4202	1.0856
14	16.4202	1.2203

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-131. CRACK GROWTH DATA FOR SPECIMEN SBPLS66

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	1	J.1949

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-132. CRACK GROWTH DATA FOR SPECIMEN SBPLS69

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.8079	0.0829

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-133. CRACK GROWTH DATA FOR SPECIMEN SBPLS7.6

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	1.7150	0.0931
3	2.7150	0.2004
4	3.7150	0.3433
5	4.7150	0.5091
6	5.7150	0.7491

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-134. CRACK GROWTH DATA FOR SPECIMEN SBPLS46

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.5192	0.0523
3	1.5192	0.2167
4	2.5192	0.4258
5	3.5192	0.7829

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-135. CRACK GROWTH DATA FOR SPECIMEN SBPLS86

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.2073	0.0350
3	1.2073	0.1774
4	2.2073	0.3540
5	3.2073	0.5306
6	4.2073	0.7195
7	5.2073	0.9341
8	6.2073	1.2300

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-136. CRACK GROWTH DATA FOR SPECIMEN SBPLS103

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.6972	0.0612
3	1.6972	0.2210
4	2.6972	0.3970
5	3.6972	0.5698
6	4.6972	0.7569
7	5.6972	0.9700

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-137. CRACK GROWTH DATA FOR SPECIMEN SBPL364

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	1.2211	0.0297
3	2.2211	0.0342
4	3.2211	0.0368
5	5.2211	0.0387
6	8.2211	0.0441
7	11.2211	0.0523
8	14.2211	0.0617
9	17.2211	0.0723
10	20.2211	0.0854
11	23.2211	0.1014
12	26.2211	0.1186
13	29.2211	0.1376
14	32.2211	0.1605
15	35.2211	0.1860
16	36.2211	0.1925
17	37.2211	0.2044
18	38.2211	0.2163
19	39.2211	0.2272
20	40.2211	0.2379
21	41.2211	0.2498
22	42.2211	0.2635
23	43.2211	0.2832

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-138. CRACK GROWTH DATA FOR SPECIMEN SBPLS68

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	12.6871	0.0455
3	13.6871	0.0477
4	18.6871	0.0673
5	24.6871	0.1073
6	27.6871	0.1355
7	30.6871	0.1697
8	33.6871	0.2177
9	34.6871	0.2360
10	35.6871	0.2621

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-139. CRACK GROWTH DATA FOR SPECIMEN SBPLS49

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	5.6408	0.0261
3	6.6408	0.0263
4	15.6408	0.0361
5	25.6408	0.0530
6	35.6408	0.0802
7	50.6408	0.1386
8	70.6408	0.2366
9	95.6408	0.3707
10	105.6408	0.4307
11	115.6408	0.4930
12	125.6408	0.5622
13	135.6408	0.6422
14	140.6408	0.6912
15	142.6408	0.7141
16	144.6408	0.7414
17	145.6408	0.7577
18	146.6408	0.7767
19	147.6408	0.7958

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-140. CRACK GROWTH DATA FOR SPECIMEN SBPLS93

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	0.5999	0.0271
3	1.5999	0.0310
4	11.5999	0.0450
5	19.5999	0.0601
6	41.5999	0.1317
7	51.5999	0.1804
8	61.5999	0.2221
9	71.5999	0.2697
10	80.5999	0.3122
11	89.5999	0.3597
12	98.5999	0.4063
13	107.5999	0.4573
14	116.5999	0.5104
15	121.5999	0.5421
16	129.5999	0.5986
17	137.5999	0.6656
18	141.5999	0.7086
19	143.5999	0.7355
20	145.5999	0.7753

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-141. CRACK GROWTH DATA FOR SPECIMEN SBPLS84

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	19.8828	0.0650
3	20.8828	0.0682
4	29.8828	0.0938
5	39.8828	0.1316
6	54.8828	0.2082
7	64.8828	0.2605
8	84.8828	0.3701
9	104.8828	0.4706
10	119.8828	0.5463
11	134.8828	0.6236
12	149.8828	0.7016
13	164.8828	0.7824
14	179.8828	0.8694
15	199.8828	0.9969
16	209.8828	1.0674
17	214.8828	1.1083
18	219.8828	1.1514
19	221.8828	1.1664

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-142. CRACK GROWTH DATA FOR SPECIMEN SBPLS87

LINE NO.	N * (PASSES)	c (IN.)
1	0	0.0250
2	15.5755	0.0626
3	16.5755	0.0664
4	23.5755	0.0839
5	30.5755	0.1074
6	40.5755	0.1494
7	55.5755	0.2176
8	70.5755	0.2834
9	80.5755	0.3299
10	100.5755	0.4204
11	115.5755	0.4874
12	130.5755	0.5547
13	145.5755	0.6222
14	160.5755	0.6920
15	175.5755	0.7626
16	190.5755	0.8407
17	205.5755	0.9165
18	220.5755	1.0159
19	225.5755	1.0535
20	230.5755	1.0880
21	235.5755	1.1294

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-143. CRACK GROWTH DATA FOR SPECIMEN SBPLS25

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	1.2821	0.0353	-	0.0000	-
3	2.2821	0.0462	-	0.0000	-
4	3.2821	0.0563	-	0.0000	-
5	4.2821	0.0658	-	0.0000	-
6	7.2821	0.1011	-	0.0000	-
7	8.2821	0.1146	-	0.0000	-
8	9.2821	0.1336	-	0.0000	-
9	12.2821	0.1928	-	0.0000	-
10	13.2821	0.2194	-	0.0000	-
11	14.2821	0.2506	-	0.0000	-
12	15.2821	0.2870	-	0.0000	-
13	16.2821	0.3415	-	0.0000	-

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-144. CRACK GROWTH DATA FOR SPECIMEN SBPLS22

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	0.3381	0.0271	-	0.0000	-
3	1.3381	0.0344	-	0.0000	-
4	4.3381	0.0655	-	0.0000	-
5	5.3381	0.0800	-	0.0000	-
6	8.3381	0.1475	-	0.0000	-
7	9.3381	0.1763	-	0.0000	-
8	10.3381	0.2131	-	0.0000	-

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-145. CRACK GROWTH DATA FOR SPECIMEN SBPLS36

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	1.43	0.0334	-	0.0000	-
3	2.43	0.0409	-	0.0000	-
4	5.43	0.0666	-	0.0000	-
5	6.43	0.0780	-	0.0000	-
6	7.43	0.0924	-	0.0000	-
7	11.43	0.1587	-	0.0000	-
8	16.43	0.2918	-	0.0000	-
9	20.43	0.4699	(0.996)	0.4064	(2.120)
10	21.43	0.5366	(1.275)	0.4936	(2.376)
11	22.43	0.6154	(1.621)	0.5854	(2.634)
12	23.43	0.7185	(2.390)	0.7026	(3.326)

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-146. CRACK GROWTH DATA FOR SPECIMEN SBPLS35

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	0.8607	0.0306	-	0.0000	-
3	1.8607	0.0387	-	0.0000	-
4	2.8607	0.0468	-	0.0000	-
5	3.8607	0.0558	-	0.0000	-
6	6.8607	0.0916	-	0.0000	-
7	7.8607	0.1085	-	0.0000	-
8	8.8607	0.1274	-	0.0000	-
9	11.8607	0.1977	-	0.0000	-
10	12.8607	0.2286	-	0.0000	-
11	13.8607	0.2638	-	0.0000	-
12	14.8607	0.3058	-	0.0000	-
13	18.8607	0.4767	(0.947)	0.0484	(1.986)
14	19.8607	0.5327	(1.208)	0.4849	(2.267)
15	20.8607	0.6114	(1.362)	0.5687	(2.227)
16	21.8607	0.7131	(1.618)	0.6782	(2.269)

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-147. CRACK GROWTH DATA FOR SPECIMEN SBPLS56

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	0.7549	0.0299	-	0.0000	-
3	1.7549	0.0379	-	0.0000	-
4	4.7549	0.0725	-	0.0000	-
5	5.7549	0.0932	-	0.0000	-
6	6.7549	0.1123	-	0.0000	-
7	10.7549	0.2383	-	0.0000	-
8	14.7549	0.4257	(0.636)	0.2629	(1.493)
9	18.7549	0.6842	(1.053)	0.6005	(1.543)
10	19.7549	0.7639	(1.134)	0.6857	(1.485)
11	20.7549	0.8433	(1.218)	0.7690	(1.445)
12	23.7549	1.1192	(1.580)	1.0617	(1.412)
13	24.7549	1.2500	(1.934)	1.2075	(1.547)

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-148. CRACK GROWTH DATA FOR SPECIMEN SBPLS54

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	1.8386	0.0352	-	0.0000	-
3	2.8386	0.0424	-	0.0000	-
4	3.8386	0.0494	-	0.0000	-
5	4.8386	0.0580	-	0.0000	-
6	7.8386	0.0968	-	0.0000	-
7	8.8386	0.1131	-	0.0000	-
8	9.8386	0.1312	-	0.0000	-
9	12.8386	0.2025	-	0.0000	-
10	13.8386	0.2351	-	0.0000	-
11	14.8386	0.2715	-	0.0000	-
12	18.8386	0.4654	(0.822)	0.3693	(1.765)
13	22.8386	0.7194	(1.605)	0.6836	(2.231)
14	23.8386	0.7900	(1.689)	0.7546	(2.138)
15	24.8386	0.8624	(2.079)	0.8371	(2.411)
16	27.8386	1.1428	(2.112)	1.1103	(1.848)

* NUMBER OF CARGO SPECTRUM PASSES

TABLE 1-149. CRACK GROWTH DATA FOR SPECIMEN SBPLS21

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	0.7752	0.0549	-	0.0000	-
3	1.7752	0.0935	-	0.0000	-
4	2.7752	0.1446	-	0.0000	-
5	3.7752	0.2165	-	0.0000	-

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-150. CRACK GROWTH DATA FOR SPECIMEN SBPLS99

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	0.0133	0.0252	-	0.0000	-
3	1.0133	0.0459	-	0.0000	-
4	2.0133	0.0802	-	0.0000	-
5	3.0133	0.1289	-	0.0000	-
6	4.0133	0.2068	-	0.0000	-

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-151. CRACK GROWTH DATA FOR SPECIMEN SBPLS39

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	1.3370	0.0496	-	0.0000	-
3	2.3370	0.0828	-	0.0000	-
4	4.3370	0.1767	-	0.0000	-
5	5.3370	0.2358	-	0.0000	-
6	6.3370	0.3147	-	0.0000	-
7	7.3370	0.4143	(0.726)	0.3003	(1.752)
8	8.3370	0.5562	(1.043)	0.4881	(1.875)

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-152. CRACK GROWTH DATA FOR SPECIMEN SBPLS100

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	0.0049	0.0251	-	0.0000	-
3	1.0049	0.0568	-	0.0000	-
4	3.0049	0.1300	-	0.0000	-
5	4.0049	0.1766	-	0.0000	-
6	5.0049	0.2295	-	0.0000	-
7	6.0049	0.2924	-	0.0000	-
8	7.0049	0.3729	-	0.0000	-
9	8.0049	0.4607	(0.689)	0.3172	(1.497)
10	9.0049	0.5806	(1.039)	0.5090	(1.790)

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-153. CRACK GROWTH DATA FOR SPECIMEN SBPLS101

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	0.6772	0.0391	-	0.0000	-
3	2.6772	0.1184	-	0.0000	-
4	4.6722	0.2750	-	0.0000	-
5	5.6772	0.3907	(0.674)	0.2618	(1.724)
6	6.6772	0.5338	(0.972)	0.4577	(1.820)
7	7.6772	0.6969	(1.305)	0.6437	(1.872)
8	8.6772	0.8781	(1.896)	0.8470	(2.159)
9	9.6772	1.1068	-	-	-

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-154. CRACK GROWTH DATA FOR SPECIMEN SBPLS102

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	0.5973	0.0343	-	0.0000	-
3	2.5973	0.1361	-	0.0000	-
4	3.5973	0.2088	-	0.0000	-
5	4.5973	0.3077	-	0.0000	-
6	5.5973	0.4340	(0.840)	0.3488	(1.936)
7	6.5973	0.5855	(1.418)	0.5479	(2.422)
8	7.5973	0.7600	(2.825)	0.7480	(3.717)
9	8.5973	0.9696	-	0.9734	-

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-155. CRACK GROWTH DATA FOR SPECIMEN SBPLS24

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	21.3559	0.0387	-	0.0000	-
3	22.3559	0.0395	-	0.0000	-
4	29.3559	0.0438	-	0.0000	-
5	41.3559	0.0511	-	0.0000	-
6	56.3559	0.0676	-	0.0000	-
7	71.3559	0.0886	-	0.0000	-
8	86.3559	0.1209	-	0.0000	-
9	96.3559	0.1469	-	0.0000	-
10	106.3559	0.1784	-	0.0000	-
11	121.3559	0.2430	-	0.0000	-
12	126.3559	0.2795	-	0.0000	-
13	128.3559	0.2954	-	0.0000	-
14	129.3559	0.3058	-	0.0000	-
15	130.3559	0.3202	-	0.0000	-
16	131.3559	0.3366	-	0.0000	-
17	132.3559	0.3750	(0.511)	0.0765	(1.362)

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-156. CRACK GROWTH DATA FOR SPECIMEN SBPLS23

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	47.7440	0.0294	-	0.0000	-
3	48.7440	0.0295	-	0.0000	-
4	57.7440	0.0315	-	0.0000	-
5	72.7440	0.0366	-	0.0000	-
6	87.7440	0.0439	-	0.0000	-
7	102.7440	0.0548	-	0.0000	-
8	117.7440	0.0689	-	0.0000	-
9	147.7440	0.1054	-	0.0000	-
10	162.7440	0.1285	-	0.0000	-
11	177.7440	0.1580	-	0.0000	-
12	187.7440	0.1828	-	0.0000	-
13	197.7440	0.2105	-	0.0000	-
14	207.7440	0.2445	-	0.0000	-
15	212.7440	0.2700	-	0.0000	-
16	214.7440	0.2789	-	0.0000	-
17	216.7440	0.2912	-	0.0000	-
18	218.7440	0.3055	-	0.0000	-
19	220.7440	0.3266	-	0.0000	-
20	222.7440	0.3461	-	0.0000	-

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-157. CRACK GROWTH DATA FOR SPECIMEN SBPLS33

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/ (IN.)
1	0	0.0250	0.025	0.0000	1.000
2	14.0244	0.0375	-	0.0000	-
3	15.0244	0.0386	-	0.0000	-
4	24.0244	0.0402	-	0.0000	-
5	74.0244	0.0531	-	0.0000	-
6	104.0244	0.0675	-	0.0000	-
7	134.0244	0.0869	-	0.0000	-
8	214.0244	0.1865	-	0.0000	-
9	244.0244	0.2540	-	0.0000	-
10	264.0244	0.3118	-	0.0000	-
11	279.0244	0.3693	(0.528)	0.1184	(1.429)
12	314.0244	0.5488	(0.904)	0.4573	(1.648)
13	324.0244	0.6177	(1.038)	0.5413	(1.680)
14	329.0244	0.6581	(1.114)	0.5881	(1.693)
15	334.0244	0.7024	(1.171)	0.6351	(1.667)
16	339.0244	0.7391	(1.403)	0.6906	(1.899)

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-158. CRACK GROWTH DATA FOR SPECIMEN SBPLS40

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	22.7427	0.0311	-	0.0000	-
3	23.7427	0.0314	-	0.0000	-
4	32.7427	0.0327	-	0.0000	-
5	92.7427	0.0506	-	0.0000	-
6	122.7427	0.0698	-	0.0000	-
7	152.7427	0.0913	-	0.0000	-
8	172.7427	0.1108	-	0.0000	-
9	222.7427	0.1883	-	0.0000	-
10	242.7427	0.2298	-	0.0000	-
11	262.7427	0.2806	-	0.0000	-
12	282.7427	0.3439	(0.510)	0.0669	(1.482)
13	302.7427	0.4146	(0.664)	0.2726	(1.601)
14	322.7427	0.5003	(0.872)	0.4099	(1.743)
15	332.7427	0.5519	(1.001)	0.4781	(1.814)
16	342.7427	0.6097	(1.135)	0.5474	(1.862)
17	352.7427	0.6838	(1.342)	0.6346	(1.963)
18	357.7427	0.7313	(1.482)	0.6884	(2.026)
19	362.7427	0.8161	(1.515)	0.7704	(1.857)

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-159. CRACK GROWTH DATA FOR SPECIMEN SBPLS59 **

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	0.3872	0.0257	-	0.0000	-
3	1.3872	0.0276	-	0.0000	-
4	10.3872	0.0287	-	0.0000	-
5	50.3872	0.0403	-	0.0000	-
6	80.3872	0.0572	-	0.0000	-
7	110.3872	0.0818	-	0.0000	-
8	135.3872	0.1080	-	0.0000	-
9	220.3872	0.2501	-	0.0000	-
10	250.3872	0.3384	-	0.0000	-
11	280.3872	0.4485	(0.708)	0.3174	(1.578)
12	305.3872	0.5576	(0.973)	0.4784	(1.746)

* NUMBER OF FIGHTER SPECTRUM PASSES

** NO DATA RECORD AFTER 305 PASSES DUE TO COMPUTER MALFUNCTION.
SPECIMEN FAILED APPROXIMATELY DURING 425 PASS.

TABLE 1-160. CRACK GROWTH DATA FOR SPECIMEN SBPLS6

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.0000	1.000
2	8.2209	0.0288	-	0.0000	-
3	9.2209	0.0293	-	0.0000	-
4	18.2209	0.0321	-	0.0000	-
5	43.2209	0.0442	-	0.0000	-
6	58.2209	0.0544	-	0.0000	-
7	143.2209	0.1557	-	0.0000	-
8	168.2209	0.2095	-	0.0000	-
9	198.2209	0.2919	-	0.0000	-
10	218.2209	0.3532	-	0.0000	-
11	238.2209	0.4284	(0.599)	0.2362	(1.399)
12	258.2209	0.5148	(0.794)	0.3998	(1.542)
13	278.2209	0.6061	(1.036)	0.5308	(1.709)
14	298.2209	0.7071	(1.313)	0.6538	(1.856)
15	318.2209	0.8162	(1.673)	0.7789	(2.050)
16	338.2209	0.9410	(2.300)	0.9185	(2.444)
17	358.2209	1.0763	-	-	-
18	368.2209	1.1811	(3.672)	1.1701	(3.109)
19	373.2209	1.2403	(2.782)	1.2201	(2.243)

* NUMBER OF FIGHTER SPECTRUM PASSES

TABLE 1-161. GROUP 1 VARIATIONAL, CRACK PROPAGATION TESTS

THICKNESS INCH		BUSHING		TYPE OF FLAW		MATERIAL		C.A. σ_o , KSI R = 0.1	SPECIMEN I.D.	DATA IN TABLE
0.25	0.50	YES	NO	CORNER	THRU	7075-T651 ALUMINUM	4340 STEEL (180-200 KSI)			
X						X		6	AVLT50 AVLT51	1-162 1-163
								15	AVLT52 AVLT53	1-164 1-165
			X	X				14	SVLT50 SVLT51	1-166 1-167
							X	*	SVLT52 SVLT53	1-168 1-169
								6	AVLR44 AVLR45	1-170 1-171
						X		15	AVLR43 AVLR103	1-172 1-173
	X	X			X			14	SVLR42 SVLR44	1-174 1-175
							X	*	SVLR43 SVLR45	1-176 1-177

* SEVERE CARGO SPECTRUM LOADING, WHICH IS 1.5 TIMES THE CARGO SPECTRUM GIVEN IN TABLES A-2 AND A-3 IN APPENDIX A

TABLE 1-162. CRACK GROWTH DATA FOR SPECIMEN AVL150

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	1700	0.0291	-	0.000	-
3	5200	0.0398	-	0.000	-
4	7700	0.0517	-	0.000	-
5	9400	0.0632	0.076	0.000	1.203
6	10200	0.0689	-	0.000	-
7	11700	0.0789	-	0.000	-
8	13000	0.0915	-	0.000	-
9	14000	0.1022	-	0.000	-
10	15000	0.1125	0.150	0.000	1.333
11	15900	0.1222	-	0.000	-
12	16800	0.1333	-	0.000	-
13	17600	0.1446	-	0.000	-
14	18300	0.1567	-	0.000	-
15	18900	0.1669	0.219	0.000	1.312
16	19400	0.1758	-	-	-
17	20000	0.1864	-	-	-
18	20500	0.1965	-	-	-
19	21100	0.2066	-	-	-
20	21700	0.2185	(0.373)	0.162	(1.705)
21	22200	0.2287	-	-	-
22	22800	0.2401	-	-	-
23	23400	0.2567	-	-	-
24	23900	0.2690	-	-	-
25	24700	0.2823	(0.564)	0.253	(1.996)
26	25300	0.2915	-	-	-
27	25800	0.3034	-	-	-
28	26200	0.3144	-	-	-
29	26600	0.3257	-	-	-
30	27000	0.3363	(1.070)	0.327	(3.183)
31	27300	0.3439	-	-	-
32	27700	0.3547	-	-	-
33	28100	0.3669	-	-	-
34	28600	0.3794	-	-	-
35	29100	0.4032	(0.865)	0.386	(2.146)
36	29250	0.4103	-	-	-
37	30550	0.4492	-	-	-
38	31650	0.4899	-	-	-
39	32450	0.5252	-	-	-
40	33250	0.5669	-	-	-
41	33950	0.6001	-	-	-
42	34650	0.6519	-	-	-
43	35250	0.7017	-	-	-
44	35650	0.7566	-	-	-
45	35850	0.7909	-	-	-
46	35950	0.8195	-	-	-

TABLE 1-163. CRACK GROWTH DATA FOR SPECIMEN AVL T51

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	3900	0.0404	-	0.000	-
3	5900	0.0516	-	0.000	-
4	7500	0.0627	-	0.000	-
5	8800	0.0739	0.090	0.000	1.218
6	9800	0.0829	-	0.000	-
7	10700	0.0942	-	0.000	-
8	11600	0.1077	-	0.000	-
9	12600	0.1193	-	0.000	-
10	13500	0.1299	0.157	0.000	1.209
11	14500	0.1417	-	0.000	-
12	15400	0.1524	-	0.000	-
13	16300	0.1678	-	0.000	-
14	16800	0.1799	-	0.000	-
15	17500	0.1906	0.229	0.000	1.201
16	18100	0.1997	-	-	-
17	18800	0.2113	-	-	-
18	19300	0.2225	-	-	-
19	20000	0.2327	-	-	-
20	20500	0.2456	(0.350)	0.172	(1.426)
21	20800	0.2531	-	-	-
22	21400	0.2638	-	-	-
23	22000	0.2740	-	-	-
24	22500	0.2852	-	-	-
25	23000	0.2964	(0.550)	0.264	(1.855)
26	23400	0.3054	-	-	-
27	24000	0.3185	-	-	-
28	24500	0.3326	-	-	-
29	24900	0.3435	-	-	-
30	25300	0.3545	(0.763)	0.335	(2.156)
31	25550	0.3617	-	-	-
32	26050	0.3730	-	-	-
33	26450	0.3859	-	-	-
34	26850	0.3984	-	-	-
35	27350	0.4096	(0.915)	0.394	(2.233)
36	27700	0.4180	-	-	-
37	28900	0.4530	-	-	-
38	30100	0.4928	-	-	-
39	31300	0.5292	-	-	-
40	32500	0.5690	-	-	-
41	33700	0.6235	-	-	-
42	34500	0.6555	-	-	-
43	35300	0.7033	-	-	-
44	35900	0.7375	-	-	-
45	36400	0.7753	-	-	-
46	36800	0.8117	-	-	-
47	37100	0.8547	-	-	-

TABLE 1-164. CRACK GROWTH DATA FOR SPECIMEN AVLT52

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	420	0.0347	-	0.000	-
3	800	0.0437	-	0.000	-
4	1140	0.0568	-	0.000	-
5	1440	0.0721	0.083	0.000	1.151
6	1630	0.0819	-	0.000	-
7	1830	0.0926	-	0.000	-
8	1940	0.1033	-	0.000	-
9	2050	0.1155	-	0.000	-
10	2170	0.1281	0.134	0.000	1.046
11	2265	0.1380	-	-	-
12	2405	0.1545	-	-	-
13	2505	0.1824	-	-	-
14	2585	0.1929	-	-	-
15	2675	0.2050	(0.534)	0.072	(2.605)
16	2810	0.2229	-	-	-
17	2890	0.2376	-	-	-
18	2940	0.2596	-	-	-
19	2965	0.2725	-	-	-
20	2995	0.2855	-	0.323	-
21	3020	0.2962	-	-	-
22	3050	0.3094	-	-	-
23	3070	0.3234	-	-	-
24	3095	0.3368	-	-	-
25	3105	0.3478	-	0.381	-
26	3110	0.3551	-	-	-
27	3135	0.3652	-	-	-
28	3145	0.3755	-	-	-
29	3170	0.3800	-	-	-
30	3195	0.4001	-	0.465	-
31	3220	0.4133	-	-	-
32	3245	0.4235	-	-	-
33	3265	0.4546	-	-	-
34	3285	0.4691	-	-	-
35	3295	0.4920	-	0.549	-
36	3300	0.5052	-	-	-
37	3350	0.5517	-	-	-
38	3380	0.5906	-	-	-
39	3400	0.6530	-	-	-
40	3410	0.6906	-	-	-
41	3415	0.7096	-	-	-

TABLE 1-165. CRACK GROWTH DATA FOR SPECIMEN AVL753

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	400	0.0329	-	0.000	-
3	800	0.0433	-	0.000	-
4	1150	0.0542	-	0.000	-
5	1450	0.0669	0.073	0.000	1.091
6	1635	0.0747	-	0.000	-
7	1985	0.0909	-	0.000	-
8	2235	0.1045	-	0.000	-
9	2435	0.1212	-	0.000	-
10	2535	0.1334	0.119	0.000	0.892
11	2580	0.1326	-	0.000	-
12	2680	0.1504	-	0.000	-
13	2780	0.1608	-	0.000	-
14	2880	0.1717	-	0.000	-
15	2980	0.1877	0.179	0.000	0.954
16	3045	0.1977	-	-	-
17	3120	0.2099	-	-	-
18	3220	0.2206	-	-	-
19	3295	0.2388	-	-	-
20	3345	0.2547	(0.421)	0.205	(1.654)
21	3375	0.2642	-	-	-
22	3425	0.2774	-	-	-
23	3450	0.2912	-	-	-
24	3475	0.3083	-	-	-
25	3505	0.3222	-	0.325	-
26	3520	0.3299	-	-	-
27	3550	0.3464	-	-	-
28	3570	0.3583	-	-	-
29	3590	0.3877	-	-	-
30	3600	0.4108	-	0.429	-
31	3605	0.4189	-	-	-
32	3635	0.4495	-	-	-
33	3645	0.4619	-	-	-
34	3665	0.4913	-	-	-
35	3675	0.5051	-	0.532	-
36	3685	0.5182	-	-	-
37	3715	0.5669	-	-	-
38	3735	0.6215	-	-	-
39	3745	0.6633	-	-	-
40	3750	0.6876	-	-	-

TABLE 1-166. CRACK GROWTH DATA FOR SPECIMEN SVLT50

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	6050	0.0325	-	0.000	-
3	10050	0.0425	-	0.000	-
4	14050	0.0531	0.071	0.000	1.337
5	15400	0.0567	-	0.000	-
6	18900	0.0675	-	0.000	-
7	21900	0.0801	-	0.000	-
8	23900	0.0912	-	0.000	-
9	25900	0.1018	0.136	0.000	1.336
10	26900	0.1072	-	0.000	-
11	28700	0.1183	-	0.000	-
12	30300	0.1304	-	0.000	-
13	31600	0.1426	-	0.000	-
14	33100	0.1535	0.206	0.000	1.342
15	34200	0.1615	-	-	-
16	35400	0.1729	-	-	-
17	36400	0.1834	-	-	-
18	37300	0.1937	-	-	-
19	38300	0.2033	(0.354)	0.144	(1.742)
20	39900	0.2185	-	-	-
21	40900	0.2313	-	-	-
22	41800	0.2413	-	-	-
23	42600	0.2527	-	-	-
24	43500	0.2629	(0.483)	0.225	(1.838)
25	44100	0.2695	-	-	-
26	45000	0.2811	-	-	-
27	45900	0.2929	-	-	-
28	46700	0.3034	-	-	-
29	47500	0.3151	(0.616)	0.288	(1.956)
30	48000	0.3226	-	-	-
31	48900	0.3331	-	-	-
32	49800	0.3467	-	-	-
33	50700	0.3585	-	-	-
34	51600	0.3694	(0.686)	0.344	(1.857)
35	52500	0.3802	-	-	-
36	54500	0.4081	-	-	-
37	56500	0.4374	-	-	-
38	58500	0.4683	-	-	-
39	60500	0.4948	-	-	-
40	62500	0.5265	-	-	-
41	64500	0.5636	-	-	-
42	66500	0.5988	-	-	-
43	68500	0.6463	-	-	-

TABLE 1-167. CRACK GROWTH DATA FOR SPECIMEN SVLT51

LINE NO.	N (CYCLES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	6500	0.0325	-	0.000	-
3	14500	0.0448	-	0.000	-
4	20000	0.0551	-	0.000	-
5	24000	0.0679	0.080	0.000	1.178
6	25500	0.0727	-	0.000	-
7	31500	0.0963	-	0.000	-
8	34000	0.1100	-	0.000	-
9	36000	0.1240	-	0.000	-
10	37800	0.1346	0.172	0.000	1.278
11	39300	0.1435	-	-	-
12	40900	0.1552	-	-	-
13	42300	0.1686	-	-	-
14	43500	0.1800	-	-	-
15	44600	0.1900	(0.283)	0.089	(1.489)
16	45600	0.1990	-	-	-
17	46600	0.2116	-	-	-
18	47600	0.2219	-	-	-
19	48500	0.2327	-	-	-
20	49400	0.2429	(0.432)	0.198	(1.777)
21	50250	0.2529	-	-	-
22	51050	0.2626	-	-	-
23	51850	0.2730	-	-	-
24	52650	0.2838	-	-	-
25	53450	0.2940	(0.559)	0.263	(1.903)
26	54150	0.3028	-	-	-
27	55150	0.3137	-	-	-
28	56050	0.3256	-	-	-
29	56850	0.3365	-	-	-
30	57650	0.3477	(0.689)	0.324	(1.981)
31	58300	0.3570	-	-	-
32	59100	0.3684	-	-	-
33	59900	0.3795	-	-	-
34	60700	0.3916	-	-	-
35	61500	0.4052	(0.660)	0.375	(1.629)
36	61900	0.4124	-	-	-
37	63900	0.4475	-	-	-
38	65900	0.4831	-	-	-
39	67900	0.5179	-	-	-
40	69900	0.5596	-	-	-
41	71900	0.5958	-	-	-
42	73900	0.6353	-	-	-
43	74900	0.6585	-	-	-
44	75900	0.6794	-	-	-
45	76900	0.6970	-	-	-
46	77900	0.7244	-	-	-
47	78900	0.7435	-	-	-
48	79900	0.7697	-	-	-
49	80900	0.7996	-	-	-
50	81900	0.8268	-	-	-

TABLE 1-168. CRACK GROWTH DATA FOR SPECIMEN SVLT52

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	0.241	0.0279	-	0.000	-
3	1.241	0.0440	-	0.000	-
4	2.241	0.0693	-	0.000	-
5	4.241	0.2119	(0.329)	0.138	(1.555)
6	5.241	0.3617	(0.832)	0.345	(2.301)
7	6.241	0.5475	-	0.548	-

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-169. CRACK GROWTH DATA FOR SPECIMEN SVLT53

LINE NO.	N * (PASSES)	c (IN.)	a (IN.)	c _B (IN.)	a/c
1	0	0.0250	0.025	0.000	1.000
2	0.502	0.0340	-	0.000	-
3	1.502	0.0627	-	0.000	-
4	2.502	0.1204	-	0.000	-
5	3.502	0.2051	(0.300)	0.113	(1.461)
6	4.502	0.3228	(0.508)	0.281	(1.574)
7	5.502	0.4538	(0.701)	0.424	(1.546)
8	6.502	0.6035	(0.905)	0.580	(1.499)

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-170. CRACK GROWTH DATA FOR SPECIMEN AVL44

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	89000	0.0604
3	99000	0.0667
4	114000	0.0735
5	144000	0.0814
6	164000	0.0867
7	189000	0.0956
8	214000	0.1018
9	239000	0.1071
10	264000	0.1188
11	282000	0.1324
12	297000	0.1496
13	312000	0.1593
14	322000	0.1672
15	324500	0.1692
16	334500	0.1764
17	344500	0.1839
18	354500	0.1895
19	367500	0.1988
20	380500	0.2089
21	393500	0.2332
22	406500	0.3225
23	414500	0.3566
24	422500	0.4022
25	430500	0.4539
26	435500	0.4803
27	440500	0.5099
28	445500	0.5400
29	446000	0.5429
30	453000	0.5902
31	460000	0.6454
32	467000	0.7407

TABLE 1-171. CRACK GROWTH DATA FOR SPECIMEN AVL45

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	9500	0.0316
3	17500	0.0385
4	25500	0.0441
5	33500	0.0499
6	34900	0.0509
7	42900	0.0552
8	50900	0.0601
9	58900	0.0696
10	66900	0.0784
11	67100	0.0786
12	75100	0.0858
13	83100	0.0978
14	91100	0.1089
15	9^100	0.1199
16	100000	0.1211
17	108000	0.1307
18	116000	0.1411
19	124000	0.1532
20	132000	0.1652
21	140000	0.1772
22	148000	0.2195
23	148400	0.2216
24	156400	0.2786
25	164400	0.3346
26	172400	0.3918
27	180400	0.4487
28	188400	0.5080
29	196400	0.5731
30	197200	0.5799
31	205200	0.6773

TABLE 1-172. CRACK GROWTH DATA FOR SPECIMEN AVL43

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	1400	0.0566
3	1900	0.0757
4	2600	0.0933
5	3100	0.1114
6	3600	0.1366
7	3720	0.1427
8	4220	0.1788
9	4720	0.2462
10	5020	0.3773
11	5070	0.3570

TABLE 1-173. CRACK GROWTH DATA FOR SILICIMEN AVL103

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	1600	0.0428
3	2300	0.0541
4	2800	0.0658
5	3300	0.0743
6	3800	0.0845
7	4125	0.0911
8	4625	0.1066
9	5125	0.1265
10	5425	0.1400
11	5625	0.1518
12	5825	0.1629
13	6025	0.1778
14	6225	0.2024
15	6425	0.2247
16	6625	0.2583
17	6825	0.3060
18	6925	0.3419
19	6975	0.3687
20	7025	0.4102
21	7040	0.4226
22	7060	0.4476
23	7065	0.4841

TABLE 1-174. CRACK GROWTH DATA FOR SPECIMEN SVLR42

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	54500	0.0667
3	64500	0.0799
4	74500	0.0963
5	84500	0.1265
6	92500	0.1537
7	100500	0.1830
8	108500	0.2150
9	116500	0.2483
10	124500	0.2813
11	128200	0.2964
12	136200	0.3312
13	144200	0.3660
14	152200	0.4029
15	160200	0.4396
16	168200	0.4772
17	176200	0.5153
18	184200	0.5549
19	192200	0.5969
20	200200	0.6419
21	208200	0.6985
22	209300	0.7065
23	211300	0.7245
24	212300	0.7381
25	212900	0.7460
26	213400	0.7583

TABLE 1-175. CRACK GROWTH DATA FOR SPECIMEN SVLR44

LINE NO.	N (CYCLES)	c (IN.)
1	0	0.0250
2	2150	0.0273
3	10150	0.0380
4	14150	0.0445
5	18150	0.0495
6	21850	0.0541
7	26850	0.0605
8	31850	0.0684
9	35850	0.0753
10	39850	0.0839
11	42550	0.0898
12	46550	0.0993
13	50550	0.1113
14	54550	0.1284
15	58550	0.1496
16	60650	0.1605
17	65650	0.1913
18	70650	0.2164
19	75650	0.2428
20	80650	0.2587
21	81750	0.2744
22	91750	0.3244
23	101750	0.3791
24	111750	0.4340
25	121750	0.4906
26	131750	0.5502
27	141750	0.6144
28	151750	0.6895
29	156750	0.7596

TABLE 1-176. CRACK GROWTH DATA FOR SPECIMEN SVLR43

LINE NO.	N * (PASSES)	c (IN.)
1	0.0000	0.0250
2	0.3826	0.0321
3	1.3826	0.0456
4	2.3826	0.0708
5	3.3826	0.1101
6	4.3826	0.1671
7	5.3826	0.2435
8	6.3826	0.3359
9	7.3826	0.4564

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

TABLE 1-177. CRACK GROWTH DATA FOR SPECIMEN SVLR45

LINE NO.	N * (PASSES)	c (IN.)
1	0.00	0.0250
2	0.98	0.0449
3	1.98	0.0701
4	2.98	0.0892
5	3.98	0.1261
6	4.98	0.1663
7	5.98	0.2054
8	6.98	0.2446
9	7.98	0.2756
10	8.98	0.3114
11	9.98	0.3519
12	10.98	0.3911
13	11.98	0.4436
14	12.98	0.5090
15	13.98	0.6059

* NUMBER OF SEVERE CARGO SPECTRUM PASSES

SECTION II

GROUP II TESTING DATA TABULATION

Group II test results are tabulated in this section. The results are tabulated in the following order.

- o Tapered Lug Fatigue Crack Initiation Tests (Table 2-1)
- o Pin Clearance, Lubrication and Precrack Locations (Table 2-2)
- o Lug Geometry, Thickness and Use of Bushing (Table 2-27)
- o Loading Angle, Material, Bushing and Load Reversal (Table 2-48)
- o Size Effect, Spectrum Loading, Thick Lugs, Wing-Pylon Lugs (Table 2-67)

The Group II lug geometries are sketched in Figure 2-1 and consist primarily of straight (S), tapered (T), dogbone (D), and clevis (C) lugs with $R_i=0.5$ inch and $R_o/R_i=2.25$. In addition, 12 straight thick lugs (S3) and 2 simulated wing-pylon lugs (R) were tested.

The tabulated results shown for Group II are not only the raw data measurements, but in addition contain calculated a/c ratios and two other computed quantities which may be helpful:

- (1) For small crack sizes, values of crack depth "a" could not be measured. The values listed in the tables were calculated by assuming that a/c was 1.0 at $c=0.025$ inch, and that a/c varied linearly with c up to the first measurable value of a . The first measured value of depth (a) is indicated by a (1) on each table.

- (2) During through-the-thickness transition, when values of c and c_B are measured and $c > c_B$, values of depth a are calculated assuming that the crack has the shape of an extended quarter-ellipse as shown in Figure 2-2. (Similarly during across-the-ligament transition when $a > a_B$, values of c are calculated from the measured values of a and a_B assuming an extended quarter-ellipse). These computed values of a (or c) are easily recognized on the data sheets: If c_B is nonzero then a is calculated rather than physical; if a_B is nonzero then c is calculated rather than physical.

TABLE 2-1. SUMMARY OF GROUP 1I LUG TESTS

(a) Off-Axis Crack Initiation Test Results for Tapered Lugs

Specimen No.	Material ⁽¹⁾	Load Direction	Grease Pin?	P _{max} (KIP)	Life to 1st Crack	Cycles to Failure	Predicted Life, Cycles
T1-A-U1	Aluminum	45°	No	15.20	300,000	322,980	638,000
T1-A-U2	Aluminum	45°	No	19.30	50,000	91,947	258,000
T1-A-U3	Aluminum	90°	No	21.59	42,000	100,612	390,000
T1-A-U4	Aluminum	90°	Grease	21.59	67,000	113,306	390,000
T1-S-U1	Steel	45°	No	27.4	226,000	258,740	—
T1-S-U2	Steel	45°	Grease	27.4	560,000	587,800	—
T1-S-U3	Steel	90°	No	30.6	162,000	199,745	—
T1-S-U4	Steel	90°	Grease	30.6	40,000	107,565	—

(i) Aluminum = 7075-T651 Aluminum Plate, 1.0 inch thick
Steel = 4340 Steel Plate, F_{TU} = 180 – 200 ksi, 0.5 inch thick

(b) Primary Submatrices in Crack Growth Test Matrix

PIN CLEARANCE, ±.00025 (INCH)		STRAIGHT LUG AXIAL LOADING		TAPERED LUG —45° LOADING LUBRICATED PIN		(a) Pin Clearance and Lubrication and Crack Location Loading: R = 0.1 Thickness: 1.0 inch Material: Aluminum No bushings
		DRY	LUBED	58° CRACK	227° CRACK	
.0005		2	2	2	2	
.0015		2	2	2	2	
.0030		2	2	2	2	
LUG GEOMETRY		B = 1.0 INCH		B = 0.5 INCH		(b) Lug Geometry, Thickness, Bushings Load Direction: Axial Loading: R = 0.1 Material: Aluminum Pin Lubricated
		BUSHING	NO BUSH	BUSHING	NO BUSH	
Straight		2	(2)	2	—	
Tapered		2	2	2	—	
Dogbone		2	2	2	—	
Clevis		—	—	2	2	
LOADING		ALUMINUM B = 1.0 INCH		STEEL B = 0.5 INCH		(c) Loading Direction, Material, Bushings, Reversed Loading Geometry: Tapered Lugs Pin Lubricated
		BUSHING	NO BUSH	BUSHING	NO BUSH	
0°	0.1	(2)	(2)	—	—	
-45°	0.1	2	(2)	2	2	
-90°	0.1	2	2	2	2	
-90°	7.5	2	2	—	—	
LUG GEOM.	2R _i (INCH)	R = 0.1		80 FLT SPECTRUM		(d) Size Effect, Thick Lugs, Spectrum Loading, Wing-Pylon Lug Pin Lubricated
		NO BUSH		NO BUSH	BUSHING	
Straight	.625	2		2	—	
2R _i /B = 2/3	1.0	2		2	—	
Axial Load	1.5	2		2	—	
Wing-Pylon 157° Load	1.0	—		—	2	

NOTES: () indicates specimens already included in above submatrix
All specimens contain initial corner cracks

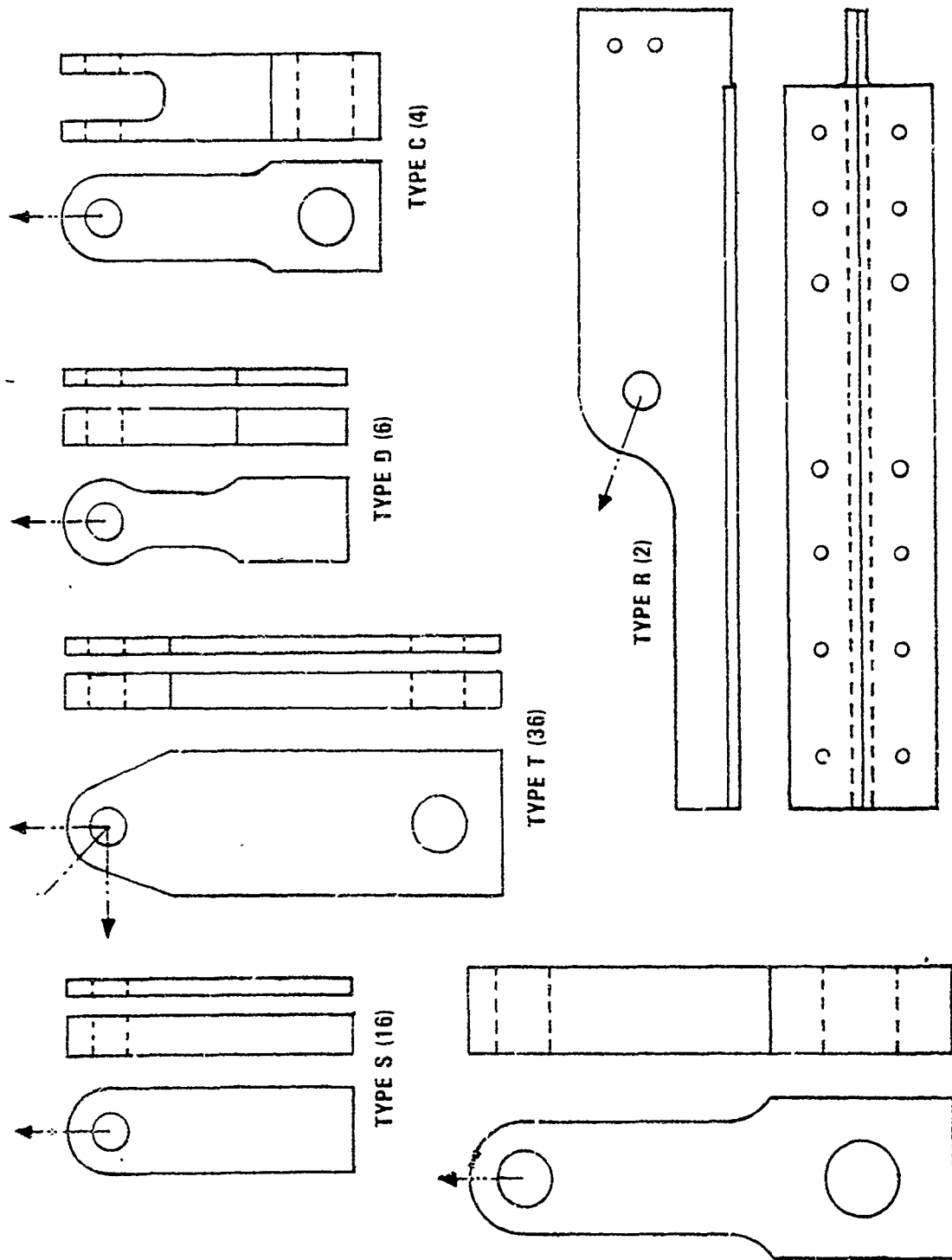


Figure 2-1. Group II Testing Lug Geometries

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Testing

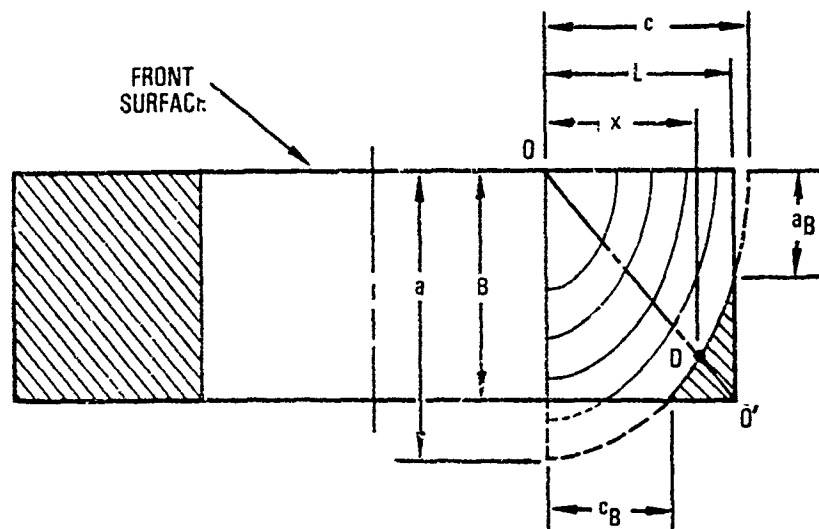


Figure 2-2. Sketch of the Extended Quarter Elliptic Corner Crack, Intersecting the Back and Outer Surfaces of the Lug

TABLE 2-2. SUMMARY OF TEST SPECIMENS IN SUBMATRIX (a): PIN
CLEARANCE, LUBRICATION AND PRECRACK LOCATION TESTS

DESCRIPTION OF SPECIMEN AND TEST	SPECIMEN NUMBER	PIN LUBE?	PIN DIA. CLEARANCE (MILS)	DATA IN TABLE
STRAIGHT LUGS AXIAL LOADING $\sigma_{\max} = 7.0$ KSI ↓	S1-X-1	DRY	0.38	2-3
	S1-X-2	DRY	0.41	2-4
	S1-X-3	LUBED	0.39	2-5
	S1-X-4	LUBED	0.36	2-6
	S1-Y-1	DRY	1.45	2-7
	S1-Y-2	DRY	1.47	2-8
	S1-Y-3	LUBED	1.51	2-9
	S1-Y-4	LUBED	1.56	2-10
	S1-Z-1	DRY	2.88	2-11
	S1-Z-2	DRY	2.89	2-12
	S1-Z-3	LUBED	2.90	2-13
	S1-Z-4		2.84	2-14
TAPERED LUGS -45° LOADING CRACK AT 58° $\sigma_{\max} = 8.58$ KSI ↓	T1-X-1		0.60	2-15
	T1-X-2		0.54	2-16
	T1-Y-1		1.88	2-17
	T1-Y-2		1.72	2-18
	T1-Z-1		2.82	2-19
	T1-Z-2		3.00	2-20
TAPERED LUGS -45° LOADING CRACK AT 227° $\sigma_{\max} = 8.58$ KSI ↓	T1-X-3		0.67	2-21
	T1-X-4		0.88	2-22
	T1-Y-3		1.50	2-23
	T1-Y-4		1.78	2-24
	T1-Z-3		3.02	2-25
	T1-Z-4	LUBED	2.97	2-26

ALL TESTS: B = 1.0 INCH 7075-T-651 ALUMINUM
PERIODIC 30% OVERLOAD SEQUENCE
NO BUSHINGS

TABLE 2-3. CRACK GROWTH DATA FOR SPECIMEN S1-X-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	4000	0.043	0.043	0.000	0.000	1.000
3	8000	0.063	0.063	0.000	0.000	1.000
4	12000	0.088	0.088	0.000	0.000	1.000
5	16000	0.113	0.113	0.000	0.000	1.000
6	20000	0.141	0.141	0.000	0.000	1.000
7	24000	0.167	0.167	0.000	0.000	1.000
8	28000	0.195	0.195	0.000	0.000	1.000
9	32000	0.220	0.220(1)	0.000	0.000	1.000
10	36000	0.249	0.250	0.000	0.000	1.004
11	40000	0.274	0.282	0.000	0.000	1.029
12	44000	0.301	0.320	0.000	0.000	1.063
13	48000	0.331	0.376	0.000	0.000	1.136
14	52000	0.364	0.397	0.000	0.000	1.091
15	56000	0.400	0.415	0.000	0.000	1.038
16	60000	0.436	0.447	0.000	0.000	1.025
17	64000	0.464	0.486	0.000	0.000	1.047
18	68000	0.500	0.541	0.000	0.000	1.082
19	72000	0.545	0.577	0.000	0.000	1.067
20	74000	0.570	0.608	0.000	0.000	1.067
21	76000	0.610	0.641	0.000	0.000	1.051
22	78000	0.663	0.679	0.000	0.226	1.024
23	80000	0.736	0.713	0.000	0.377	0.968
24	82000	0.819	0.782	0.000	0.505	0.955
25	84000	0.922	0.872	0.000	0.641	0.946

TABLE 2-4. CRACK GROWTH DATA FOR SPECIMEN S1-X-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1665	0.031	0.031	0.000	0.000	1.000
3	3665	0.037	0.037	0.000	0.000	1.000
4	5665	0.049	0.049	0.000	0.000	1.000
5	7665	0.059	0.059	0.000	0.000	1.000
6	9665	0.069	0.069	0.000	0.000	1.000
7	11670	0.079	0.079 (1)	0.000	0.000	1.000
8	15670	0.098	0.099	0.000	0.000	1.010
9	19670	0.122	0.121	0.000	0.000	0.990
10	23670	0.144	0.143	0.000	0.000	0.990
11	27670	0.167	0.168	0.000	0.000	1.010
12	31670	0.193	0.195	0.000	0.000	1.010
13	35670	0.217	0.218	0.000	0.000	1.000
14	39670	0.237	0.240	0.000	0.000	1.013
15	41670	0.250	0.262	0.000	0.000	1.048
16	45670	0.273	0.290	0.000	0.000	1.062
17	49670	0.298	0.315	0.000	0.000	1.057
18	53670	0.326	0.340	0.000	0.000	1.043
19	57670	0.355	0.370	0.000	0.000	1.042
20	61670	0.380	0.400	0.000	0.000	1.053
21	65670	0.410	0.436	0.000	0.000	1.060
22	69670	0.439	0.462	0.000	0.000	1.052
23	73670	0.475	0.492	0.000	0.000	1.036
24	77670	0.518	0.526	0.000	0.000	1.015
25	81670	0.560	0.578	0.000	0.000	1.032
26	83670	0.590	0.599	0.000	0.000	1.015
27	85670	0.626	0.626	0.000	0.038	1.000
28	87670	0.681	0.662	0.000	0.262	0.973
29	89670	0.772	0.719	0.000	0.422	0.931
30	91620	0.866	0.796	0.000	0.551	0.915

TABLE 2-5. CRACK GROWTH DATA FOR SPECIMEN S1-X-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	4603	0.040	0.042	0.000	0.000	1.048
3	8603	0.058	0.064	0.000	0.000	1.106
4	12600	0.084	0.100(1)	0.000	0.000	1.190
5	14600	0.103	0.123	0.000	0.000	1.194
6	16600	0.115	0.140	0.000	0.000	1.217
7	18600	0.132	0.151	0.000	0.000	1.144
8	20600	0.144	0.174	0.000	0.000	1.208
9	22600	0.163	0.192	0.000	0.000	1.178
10	24600	0.172	0.213	0.000	0.000	1.238
11	26600	0.193	0.241	0.000	0.000	1.249
12	28600	0.206	0.263	0.000	0.000	1.277
13	30600	0.233	0.285	0.000	0.000	1.223
14	32600	0.249	0.312	0.000	0.000	1.253
15	34600	0.275	0.335	0.000	0.000	1.218
16	36600	0.294	0.358	0.000	0.000	1.218
17	38600	0.317	0.391	0.000	0.000	1.233
18	40600	0.339	0.414	0.000	0.000	1.221
19	42600	0.361	0.436	0.000	0.000	1.208
20	44600	0.385	0.463	0.000	0.000	1.203
21	46600	0.414	0.500	0.000	0.000	1.208
22	48600	0.443	0.535	0.000	0.000	1.208
23	50600	0.475	0.563	0.000	0.000	1.185
24	52600	0.508	0.594	0.000	0.000	1.169
25	54600	0.564	0.640	0.000	0.000	1.135
26	56600	0.651	0.681	0.000	0.190	1.046
27	58600	0.750	0.750	0.000	0.414	1.000
28	60550	0.841	0.852	0.000	0.575	1.006

TABLE 2-6. CRACK GROWTH DATA FOR SPECIMEN S1-X-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	8000	0.045	0.046	0.000	0.000	1.013
3	16000	0.074	0.076	0.000	0.000	1.032
4	20000	0.099	0.104	0.000	0.000	1.048
5	24000	0.125	0.133	0.000	0.000	1.064
6	28000	0.148	0.160	0.000	0.000	1.079
7	32000	0.177	0.194	0.000	0.000	1.098
8	36000	0.202	0.225 (1)	0.000	0.000	1.114
9	40000	0.225	0.270	0.000	0.000	1.200
10	44000	0.257	0.300	0.000	0.000	1.167
11	48000	0.296	0.335	0.000	0.000	1.133
12	52000	0.329	0.370	0.000	0.000	1.123
13	56000	0.377	0.420	0.000	0.000	1.113
14	60000	0.408	0.450	0.000	0.000	1.103
15	64000	0.447	0.500	0.000	0.000	1.119
16	68000	0.495	0.532	0.000	0.000	1.075
17	70000	0.520	0.557	0.000	0.000	1.071
18	72000	0.551	0.582	0.000	0.000	1.056
19	74000	0.595	0.623	0.000	0.000	1.047
20	76000	0.661	0.671	0.000	0.218	1.015
21	78000	0.740	0.731	0.000	0.392	0.987
22	80000	0.901	0.861	0.000	0.620	0.956
23	81130	1.159	0.950	0.000	0.800	0.820

TABLE 2-7. CRACK GROWTH DATA FOR SPECIMEN S1-Y-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	3019	0.038	0.042 (1)	0.000	0.000	1.105
3	5019	0.053	0.057	0.000	0.000	1.075
4	7019	0.067	0.076	0.000	0.000	1.134
5	9019	0.086	0.098	0.000	0.000	1.140
6	11020	0.101	0.122	0.000	0.000	1.208
7	13020	0.120	0.147	0.000	0.000	1.225
8	15020	0.135	0.173	0.000	0.000	1.281
9	17020	0.157	0.198	0.000	0.000	1.261
10	19020	0.176	0.227	0.000	0.000	1.290
11	21020	0.193	0.253	0.000	0.000	1.311
12	23020	0.217	0.275	0.000	0.000	1.267
13	25020	0.232	0.299	0.000	0.000	1.289
14	27020	0.252	0.325	0.000	0.000	1.290
15	29020	0.279	0.357	0.000	0.000	1.280
16	31020	0.299	0.386	0.000	0.000	1.291
17	33020	0.320	0.416	0.000	0.000	1.300
18	35020	0.341	0.438	0.000	0.000	1.284
19	37020	0.365	0.459	0.000	0.000	1.258
20	39020	0.394	0.482	0.000	0.000	1.223
21	41020	0.419	0.505	0.000	0.000	1.205
22	43020	0.450	0.527	0.000	0.000	1.171
23	45020	0.482	0.554	0.000	0.000	1.149
24	47020	0.521	0.587	0.000	0.000	1.127
25	49020	0.568	0.625	0.000	0.000	1.100
26	51020	0.652	0.662	0.000	0.188	1.016
27	53020	0.753	0.767	0.000	0.428	1.018
28	55020	0.821	0.910	0.000	0.590	1.109

TABLE 2-8. CRACK GROWTH DATA FOR SPECIMEN S1-Y-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1339	0.031	0.040 (1)	0.000	0.000	1.290
3	3339	0.040	0.049	0.000	0.000	1.225
4	5339	0.051	0.059	0.000	0.000	1.157
5	7339	0.062	0.073	0.000	0.000	1.177
6	9339	0.076	0.090	0.000	0.000	1.184
7	11340	0.087	0.110	0.000	0.000	1.264
8	13340	0.108	0.131	0.000	0.000	1.213
9	15340	0.121	0.149	0.000	0.000	1.231
10	17340	0.137	0.172	0.000	0.000	1.255
11	19340	0.151	0.190	0.000	0.000	1.258
12	23340	0.182	0.232	0.000	0.000	1.275
13	27340	0.215	0.270	0.000	0.000	1.256
14	31340	0.249	0.316	0.000	0.000	1.269
15	35340	0.282	0.363	0.000	0.000	1.287
16	39340	0.322	0.403	0.000	0.000	1.252
17	43340	0.365	0.442	0.000	0.000	1.211
18	47340	0.410	0.486	0.000	0.000	1.185
19	51340	0.463	0.521	0.000	0.000	1.125
20	53340	0.493	0.541	0.000	0.000	1.097
21	55340	0.527	0.560	0.000	0.000	1.063
22	57340	0.565	0.585	0.000	0.000	1.035
23	59340	0.633	0.618	0.000	0.100	0.976
24	61340	0.730	0.678	0.000	0.350	0.929
25	63340	0.840	0.760	0.000	0.508	0.904
26	65290	1.161	0.890	0.000	0.750	0.767

TABLE 2-9. CRACK GROWTH DATA FOR SPECIMEN S1-Y-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1776	0.027	0.027	0.000	0.000	1.008
3	5776	0.034	0.035	0.000	0.000	1.034
4	7776	0.046	0.050	0.000	0.000	1.079
5	9775	0.054	0.060	0.000	0.000	1.109
6	11780	0.064	0.073	0.000	0.000	1.146
7	13780	0.076	0.091	0.000	0.000	1.191
8	15780	0.090	0.112 (1)	0.000	0.000	1.244
9	17780	0.104	0.134	0.000	0.000	1.283
10	19780	0.118	0.159	0.000	0.000	1.347
11	21780	0.133	0.185	0.000	0.000	1.391
12	23780	0.151	0.215	0.000	0.000	1.424
13	25780	0.170	0.247	0.000	0.000	1.453
14	27780	0.187	0.279	0.000	0.000	1.492
15	29780	0.211	0.314	0.000	0.000	1.488
16	31780	0.234	0.351	0.000	0.000	1.500
17	33780	0.253	0.392	0.000	0.000	1.549
18	35780	0.276	0.443	0.000	0.000	1.572
19	37780	0.295	0.470	0.000	0.000	1.593
20	39780	0.322	0.508	0.000	0.000	1.578
21	41780	0.346	0.541	0.000	0.000	1.564
22	43780	0.376	0.572	0.000	0.000	1.521
23	45780	0.407	0.612	0.000	0.000	1.504
24	47780	0.442	0.648	0.000	0.000	1.466
25	49780	0.483	0.685	0.000	0.000	1.418
26	51780	0.531	0.724	0.000	0.000	1.363
27	53780	0.627	0.784	0.000	0.060	1.251
28	55780	0.938	0.933	0.000	0.696	0.994

TABLE 2-10. CRACK GROWTH DATA FOR SPECIMEN S1-Y-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	4000	0.031	0.031	0.000	0.000	1.016
3	12000	0.042	0.044	0.000	0.000	1.044
4	20000	0.068	0.076	0.000	0.000	1.112
5	24000	0.090	0.105	0.000	0.000	1.169
6	28000	0.126	0.159	0.000	0.000	1.263
7	30000	0.137	0.177 (1)	0.000	0.000	1.292
8	32000	0.156	0.194	0.000	0.000	1.244
9	34000	0.171	0.228	0.000	0.000	1.333
10	36000	0.190	0.259	0.000	0.000	1.363
11	38000	0.196	0.297	0.000	0.000	1.515
12	40000	0.245	0.335	0.000	0.000	1.367
13	42000	0.274	0.377	0.000	0.000	1.376
14	44000	0.285	0.421	0.000	0.000	1.477
15	46000	0.316	0.465	0.000	0.000	1.472
16	48000	0.354	0.505	0.000	0.000	1.427
17	50000	0.411	0.551	0.000	0.000	1.341
18	52000	0.437	0.601	0.000	0.000	1.375
19	54000	0.487	0.624	0.000	0.000	1.281
20	56000	0.551	0.696	0.000	0.000	1.263
21	58000	0.634	0.772	0.000	0.133	1.217
22	58570	0.802	0.910	0.000	0.570	1.135

TABLE 2-11. CRACK GROWTH DATA FOR SPECIMEN S1-Z-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	795	0.028	0.028	0.000	0.000	1.008
3	2796	0.037	0.038	0.000	0.000	1.032
4	4796	0.053	0.057	0.000	0.000	1.074
5	6796	0.072	0.081	0.000	0.000	1.125
6	8796	0.098	0.117 (1)	0.000	0.000	1.194
7	10800	0.119	0.146	0.000	0.000	1.227
8	12800	0.142	0.178	0.000	0.000	1.254
9	14800	0.170	0.212	0.000	0.000	1.247
10	16800	0.198	0.248	0.000	0.000	1.253
11	18800	0.225	0.291	0.000	0.000	1.293
12	20800	0.250	0.337	0.000	0.000	1.348
13	22800	0.283	0.382	0.000	0.000	1.350
14	24800	0.323	0.433	0.000	0.000	1.341
15	26800	0.359	0.481	0.000	0.000	1.340
16	28800	0.396	0.530	0.000	0.000	1.338
17	30800	0.443	0.584	0.000	0.000	1.318
18	32800	0.491	0.635	0.000	0.000	1.293
19	34800	0.552	0.689	0.000	0.000	1.248
20	36800	0.652	0.747	0.000	0.212	1.146
21	38800	0.807	0.851	0.000	0.538	1.055
22	40300	1.462	0.896	0.000	0.810	0.613

TABLE 2-12. CRACK GROWTH DATA FOR SPECIMEN S1-Z-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	4000	0.030	0.031	0.000	0.000	1.017
3	8000	0.041	0.043	0.000	0.000	1.056
4	12000	0.059	0.066	0.000	0.000	1.119
5	16000	0.078	0.092	0.000	0.000	1.185
6	20000	0.107	0.138	0.000	0.000	1.286
7	24000	0.133	0.179 (1)	0.000	0.000	1.377
8	28000	0.168	0.230	0.000	0.000	1.369
9	32000	0.207	0.292	0.000	0.000	1.411
10	36000	0.247	0.367	0.000	0.000	1.486
11	40000	0.300	0.430	0.000	0.000	1.433
12	42000	0.326	0.461	0.000	0.000	1.414
13	44000	0.355	0.490	0.000	0.000	1.380
14	46000	0.383	0.514	0.000	0.000	1.342
15	48000	0.415	0.538	0.000	0.000	1.296
16	50000	0.447	0.560	0.000	0.000	1.253
17	52000	0.487	0.582	0.000	0.000	1.195
18	54000	0.535	0.616	0.000	0.000	1.151
19	56000	0.587	0.660	0.000	0.000	1.124
20	58000	0.701	0.725	0.000	0.329	1.034
21	60000	0.706	0.855	0.000	0.398	1.211
22	60780	-	0.889	0.000	0.900	-

TABLE 2-13. CRACK GROWTH DATA FOR SPECIMEN S1-Z-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1298	0.029	0.029	0.000	0.000	1.012
3	3298	0.036	0.037	0.000	0.000	1.033
4	5298	0.040	0.042	0.000	0.000	1.045
5	7298	0.050	0.054	0.000	0.000	1.075
6	9298	0.060	0.066	0.000	0.000	1.105
7	11300	0.080	0.093	0.000	0.000	1.164
8	13300	0.096	0.127 (1)	0.000	0.000	1.233
9	15300	0.130	0.157	0.000	0.000	1.208
10	17300	0.154	0.187	0.000	0.000	1.214
11	19300	0.177	0.227	0.000	0.000	1.282
12	21300	0.202	0.263	0.000	0.000	1.332
13	23300	0.230	0.312	0.000	0.000	1.357
14	25300	0.260	0.361	0.000	0.000	1.388
15	27300	0.289	0.409	0.000	0.000	1.415
16	29300	0.321	0.467	0.000	0.000	1.455
17	31300	0.354	0.513	0.000	0.000	1.449
18	33300	0.394	0.567	0.000	0.000	1.439
19	35300	0.435	0.622	0.000	0.000	1.430
20	37300	0.481	0.680	0.000	0.000	1.414
21	39300	0.553	0.733	0.000	0.000	1.325
22	41300	0.674	0.814	0.000	0.305	1.208
23	42200	1.009	0.945	0.000	0.742	0.956

TABLE 2-14. CRACK GROWTH DATA FOR SPECIMEN S1-Z-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1029	0.028	0.028	0.000	0.000	1.009
3	11030	0.049	0.053	0.000	0.000	1.075
4	15030	0.070	0.080	0.000	0.000	1.140
5	19030	0.103	0.128	0.000	0.000	1.243
6	23030	0.130	0.173 (1)	0.000	0.000	1.326
7	25030	0.157	0.218	0.000	0.000	1.391
8	27030	0.173	0.253	0.000	0.000	1.462
9	29030	0.209	0.294	0.000	0.000	1.407
10	31030	0.218	0.335	0.000	0.000	1.537
11	33030	0.269	0.392	0.000	0.000	1.457
12	35030	0.281	0.443	0.000	0.000	1.577
13	37030	0.321	0.494	0.000	0.000	1.540
14	39030	0.367	0.551	0.000	0.000	1.501
15	41030	0.405	0.611	0.000	0.000	1.509
16	43030	0.462	0.671	0.000	0.000	1.452
17	45030	0.528	0.753	0.000	0.000	1.426
18	47030	0.633	0.848	0.000	0.134	1.340
19	48930	0.832	0.940	0.000	0.620	1.130

TABLE 2-15. CRACK GROWTH DATA FOR SPECIMEN T1-X-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	3042	0.031	0.031	0.000	0.000	1.010
3	7042	0.044	0.045	0.000	0.000	1.033
4	11040	0.060	0.064	0.000	0.000	1.060
5	15040	0.081	0.089	0.000	0.000	1.096
6	19040	0.107	0.122	0.000	0.000	1.141
7	23040	0.139	0.166	0.000	0.000	1.196
8	27040	0.192	0.247	0.000	0.000	1.287
9	31040	0.245	0.337	0.000	0.000	1.378
10	33040	0.275	0.393 (1)	0.000	0.000	1.429
11	35040	0.305	0.432	0.000	0.000	1.416
12	37040	0.352	0.474	0.000	0.000	1.347
13	39040	0.397	0.514	0.000	0.000	1.295
14	41040	0.453	0.555	0.000	0.000	1.225
15	43040	0.513	0.599	0.000	0.000	1.168
16	45040	0.581	0.638	0.000	0.000	1.098
17	47040	0.675	0.687	0.000	0.259	1.018
18	49040	0.821	0.787	0.000	0.510	0.959
19	50120	1.338	0.915	0.000	0.809	0.684

TABLE 2-16. CRACK GROWTH DATA FOR SPECIMEN T1-X-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	3922	0.035	0.036	0.000	0.000	1.037
3	7922	0.045	0.048	0.000	0.000	1.073
4	11920	0.060	0.068	0.000	0.000	1.128
5	15920	0.077	0.092	0.000	0.000	1.191
6	19920	0.102	0.131	0.000	0.000	1.283
7	23920	0.128	0.176	0.000	0.000	1.378
8	25920	0.155	0.229 (1)	0.000	0.000	1.477
9	27920	0.180	0.256	0.000	0.000	1.422
10	29920	0.212	0.288	0.000	0.000	1.358
11	31920	0.250	0.324	0.000	0.000	1.296
12	33920	0.286	0.358	0.000	0.000	1.252
13	35920	0.319	0.394	0.000	0.000	1.235
14	37920	0.356	0.428	0.000	0.000	1.202
15	39920	0.396	0.462	0.000	0.000	1.167
16	41920	0.433	0.508	0.000	0.000	1.173
17	43920	0.479	0.546	0.000	0.000	1.140
18	45920	0.529	0.589	0.000	0.000	1.113
19	47920	0.590	0.626	0.000	0.000	1.061
20	49920	0.676	0.668	0.000	0.255	0.988
21	51920	0.782	0.738	0.000	0.444	0.943
22	53820	1.213	0.910	0.000	0.780	0.750

TABLE 2-17. CRACK GROWTH DATA FOR SPECIMEN T1-Y-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	997	0.031	0.031	0.000	0.000	1.007
3	2997	0.048	0.049	0.000	0.000	1.029
4	4997	0.070	0.074	0.000	0.000	1.057
5	6997	0.107	0.118	0.000	0.000	1.104
6	8997	0.152	0.176	0.000	0.000	1.161
7	11000	0.196	0.238	0.000	0.000	1.217
8	13000	0.261	0.339 (1)	0.000	0.000	1.299
9	15000	0.324	0.401	0.000	0.000	1.238
10	17000	0.390	0.473	0.000	0.000	1.213
11	19000	0.458	0.545	0.000	0.000	1.190
12	21000	0.550	0.621	0.000	0.000	1.129
13	23000	0.688	0.772	0.000	0.322	1.123
14	24000	0.703	0.926	0.000	0.425	1.316

TABLE 2-18. CRACK GROWTH DATA FOR SPECIMEN T1-Y-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	583	0.029	0.030	0.000	0.000	1.024
3	2583	0.037	0.040	0.000	0.000	1.072
4	4583	0.058	0.069	0.000	0.000	1.198
5	6583	0.067	0.084	0.000	0.000	1.252
6	8583	0.082	0.110 (1)	0.000	0.000	1.341
7	10580	0.103	0.143	0.000	0.000	1.388
8	12580	0.124	0.175	0.000	0.000	1.411
9	14580	0.151	0.215	0.000	0.000	1.424
10	16580	0.180	0.255	0.000	0.000	1.417
11	18580	0.223	0.314	0.000	0.000	1.408
12	20580	0.253	0.356	0.000	0.000	1.407
13	22580	0.288	0.405	0.000	0.000	1.406
14	24580	0.323	0.460	0.000	0.000	1.424
15	26580	0.373	0.519	0.000	0.000	1.391
16	28580	0.439	0.579	0.000	0.000	1.319
17	30580	0.512	0.640	0.000	0.000	1.250
18	32580	0.601	0.703	0.000	0.000	1.170
19	34580	0.708	0.791	0.000	0.371	1.118
20	36580	0.809	0.922	0.000	0.585	1.140
21	38480	1.763	0.970	0.000	0.907	0.550

TABLE 2-19. CRACK GROWTH DATA FOR SPECIMEN T1-Z-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	2541	0.034	0.035	0.000	0.000	1.020
3	4541	0.043	0.045	0.000	0.000	1.040
4	6541	0.055	0.059	0.000	0.000	1.066
5	8541	0.073	0.081	0.000	0.000	1.106
6	10540	0.097	0.112	0.000	0.000	1.158
7	12540	0.126	0.154(1)	0.000	0.000	1.222
8	14540	0.156	0.203	0.000	0.000	1.301
9	16540	0.191	0.255	0.000	0.000	1.335
10	18540	0.233	0.318	0.000	0.000	1.365
11	20540	0.280	0.385	0.000	0.000	1.375
12	22540	0.328	0.458	0.000	0.000	1.396
13	24540	0.386	0.525	0.000	0.000	1.360
14	26540	0.444	0.605	0.000	0.000	1.363
15	28540	0.522	0.682	0.000	0.000	1.307
16	30540	0.631	0.760	0.000	0.108	1.204
17	32450	0.740	0.905	0.000	0.485	1.223

TABLE 2-20. CRACK GROWTH DATA FOR SPECIMEN T1-Z-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1582	0.030	0.031	0.000	0.000	1.020
3	3582	0.036	0.038	0.000	0.000	1.045
4	5582	0.045	0.050	0.000	0.000	1.086
5	7582	0.054	0.060	0.000	0.000	1.118
6	9582	0.065	0.076	0.000	0.000	1.163
7	11580	0.087	0.109 (1)	0.000	0.000	1.253
8	13580	0.109	0.140	0.000	0.000	1.284
9	15580	0.135	0.179	0.000	0.000	1.326
10	17580	0.165	0.218	0.000	0.000	1.321
11	19580	0.202	0.271	0.000	0.000	1.342
12	21580	0.240	0.325	0.000	0.000	1.354
13	23580	0.285	0.385	0.000	0.000	1.351
14	25580	0.330	0.443	0.000	0.000	1.342
15	27580	0.375	0.508	0.000	0.000	1.355
16	29580	0.430	0.570	0.000	0.000	1.326
17	31580	0.508	0.650	0.000	0.000	1.280
18	33580	0.610	0.734	0.000	0.000	1.203
19	35520	0.711	0.915	0.000	0.437	1.286

TABLE 2-21. CRACK GROWTH DATA FOR SPECIMEN T1-X-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1154	0.030	0.030	0.000	0.000	1.010
3	3154	0.045	0.048	0.000	0.000	1.046
4	5154	0.075	0.085 (1)	0.000	0.000	1.133
5	7154	0.123	0.138	0.000	0.000	1.122
6	9154	0.174	0.191	0.000	0.000	1.098
7	11150	0.228	0.260	0.000	0.000	1.140
8	13150	0.286	0.321	0.000	0.000	1.122
9	15150	0.341	0.379	0.000	0.000	1.111
10	17150	0.391	0.434	0.000	0.000	1.110
11	19150	0.440	0.473	0.000	0.000	1.075
12	21150	0.491	0.507	0.000	0.000	1.033
13	23150	0.545	0.554	0.000	0.000	1.017
14	25150	0.608	0.630	0.000	0.000	1.036
15	27150	0.670	0.695	0.000	0.000	1.037
16	29150	0.737	0.765	0.000	0.000	1.038
17	31150	0.807	0.828	0.000	0.000	1.026
18	33150	0.882	0.927	0.000	0.000	1.051
19	35060	0.945	1.115	0.418	0.000	1.180
20	35120	0.984	1.340	0.655	0.000	1.362

TABLE 2-22. CRACK GROWTH DATA FOR SPECIMEN T1-X-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1793	0.037	0.038	0.000	0.000	1.024
3	3793	0.066	0.071	0.000	0.000	1.083
4	5793	0.090	0.102	0.000	0.000	1.131
5	7793	0.139	0.171 (1)	0.000	0.000	1.230
6	9793	0.186	0.228	0.000	0.000	1.226
7	11790	0.228	0.269	0.000	0.000	1.180
8	13790	0.277	0.305	0.000	0.000	1.101
9	15790	0.329	0.338	0.000	0.000	1.027
10	17790	0.376	0.367	0.000	0.000	0.976
11	19790	0.428	0.409	0.000	0.000	0.956
12	21790	0.477	0.465	0.000	0.000	0.975
13	23790	0.533	0.510	0.000	0.000	0.957
14	25790	0.581	0.551	0.000	0.000	0.948
15	27790	0.636	0.593	0.000	0.000	0.932
16	29790	0.690	0.638	0.000	0.000	0.925
17	31790	0.740	0.686	0.000	0.000	0.927
18	33790	0.800	0.730	0.000	0.000	0.913
19	35790	0.856	0.772	0.000	0.000	0.902
20	37790	0.923	0.820	0.000	0.000	0.888
21	39790	0.985	0.866	0.000	0.000	0.879
22	41790	1.047	0.934	0.000	0.000	0.892
23	43790	1.118	1.024	0.240	0.000	0.916
24	45790	1.196	1.080	0.452	0.000	0.903
25	47790	1.281	1.124	0.585	0.000	0.877
26	49790	1.394	1.238	0.822	0.000	0.888

TABLE 2-23. CRACK GROWTH DATA FOR SPECIMEN T1-Y-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1485	0.041	0.042	0.000	0.000	1.029
3	3485	0.048	0.050	0.000	0.000	1.041
4	5485	0.095	0.107 (1)	0.000	0.000	1.126
5	7485	0.160	0.192	0.000	0.000	1.200
6	9485	0.244	0.284	0.000	0.000	1.164
7	11480	0.272	0.322	0.000	0.000	1.184
8	13480	0.326	0.376	0.000	0.000	1.153
9	15480	0.387	0.440	0.000	0.000	1.137
10	17480	0.480	0.498	0.000	0.000	1.038
11	19480	0.503	0.576	0.000	0.000	1.145
12	21480	0.573	0.643	0.000	0.000	1.122
13	23480	0.634	0.720	0.000	0.000	1.136
14	25480	0.710	0.800	0.000	0.000	1.127
15	27480	0.780	0.880	0.000	0.000	1.128
16	29480	0.857	0.965	0.000	0.000	1.126
17	31480	0.930	1.049	0.280	0.000	1.128
18	33480	1.018	1.152	0.505	0.000	1.131
19	35480	1.110	1.224	0.640	0.000	1.103
20	37400	1.299	1.295	0.825	0.000	0.997

TABLE 2-24. CRACK GROWTH DATA FOR SPECIMEN T1-Y-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1000	0.031	0.029 (1)	0.000	0.000	0.935
3	3000	0.039	0.041	0.000	0.000	1.051
4	5000	0.056	0.062	0.000	0.000	1.107
5	7000	0.078	0.095	0.000	0.000	1.218
6	9000	0.127	0.146	0.000	0.000	1.150
7	11000	0.178	0.214	0.000	0.000	1.202
8	13000	0.242	0.273	0.000	0.000	1.128
9	15000	0.314	0.348	0.000	0.000	1.108
10	17000	0.382	0.431	0.000	0.000	1.128
11	19000	0.456	0.508	0.000	0.000	1.114
12	21000	0.534	0.593	0.000	0.000	1.110
13	23000	0.614	0.688	0.000	0.000	1.121
14	25000	0.700	0.781	0.000	0.000	1.116
15	27000	0.781	0.877	0.000	0.000	1.123
16	29000	0.881	1.032	0.000	0.218	1.172
17	31000	0.976	1.148	0.000	0.480	1.177
18	33000	1.103	1.284	0.000	0.692	1.164
19	35000	1.253	1.429	0.000	0.895	1.140
20	36918	1.421	1.798	0.000	1.181	1.265

TABLE 2-25. CRACK GROWTH DATA FOR SPECIMEN T1-Z-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1961	0.040	0.041	0.000	0.000	1.017
3	3961	0.062	0.065	0.000	0.000	1.042
4	5961	0.102	0.111 (1)	0.000	0.000	1.088
5	7961	0.156	0.180	0.000	0.000	1.154
6	9961	0.213	0.263	0.000	0.000	1.235
7	11960	0.280	0.350	0.000	0.000	1.250
8	13960	0.331	0.427	0.000	0.000	1.290
9	15960	0.396	0.500	0.000	0.000	1.263
10	17960	0.459	0.581	0.000	0.000	1.266
11	19960	0.524	0.687	0.000	0.000	1.311
12	21960	0.604	0.800	0.000	0.000	1.325
13	23960	0.672	0.913	0.000	0.000	1.359
14	25960	0.763	1.069	0.270	0.000	1.401
15	27960	0.856	1.170	0.444	0.000	1.366
16	29960	0.944	1.315	0.613	0.000	1.393
17	31960	1.087	1.460	0.792	0.000	1.343
18	33780	1.240	1.508	0.928	0.000	1.216

TABLE 2-26. CRACK GROWTH DATA FOR SPECIMEN T1-Z-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	430	0.027	0.027	0.000	0.000	1.004
3	2431	0.057	0.061	0.000	0.000	1.063
4	4431	0.077	0.085	0.000	0.000	1.102
5	6431	0.114	0.134 (1)	0.000	0.000	1.175
6	8431	0.153	0.193	0.000	0.000	1.261
7	10430	0.202	0.265	0.000	0.000	1.312
8	12430	0.264	0.347	0.000	0.000	1.314
9	14430	0.322	0.433	0.000	0.000	1.345
10	16430	0.393	0.525	0.000	0.000	1.336
11	18430	0.462	0.625	0.000	0.000	1.353
12	20430	0.543	0.739	0.000	0.000	1.361
13	22430	0.641	0.883	0.000	0.000	1.378
14	24430	0.737	1.059	0.243	0.000	1.437
15	26430	0.839	1.207	0.470	0.000	1.439
16	28430	0.962	1.271	0.594	0.000	1.322
17	30430	1.100	1.316	0.715	0.000	1.196
18	32430	1.265	1.494	0.940	0.000	1.181
19	34330	1.394	1.753	1.145	0.000	1.258

TABLE 2-27. SUMMARY OF TEST SPECIMENS IN SUBMATRIX (b): LUG GEOMETRY, THICKNESS AND USE OF BUSHING TESTS

DESCRIPTION OF SPECIMEN AND TEST	SPECIMEN NUMBER	LUG GEOMETRY	LUG THICKNESS (INCH)	DATA IN TABLE
UNBUSHED LUGS $\sigma_{\max} = 7.0$ KSI	T1-A-1	TAPERED	1.0	2-28
	T1-A-2	TAPERED		2-29
	D1-A-1	DOGBONE		2-30
	D1-A-2	DOGBONE	1.0	2-31
	C1-A-1	CLEVIS	0.5	2-32
	C1-A-2	CLEVIS	0.5	2-33
WITH SHRINK FIT STEEL BUSHINGS $\sigma_{\max} = 10$ KSI	T2-A-1	TAPERED	1.0	2-34
	T2-A-2	TAPERED		2-35
	S2-A-1	STRAIGHT		2-36
	S2-A-2	STRAIGHT		2-37
	D2-A-1	DOGBONE		2-38
	D2-A-2	DOGBONE	1.0	2-39
	T2-B-1	TAPERED	0.5	2-40
	T2-B-2	TAPERED		2-41
	S2-B-1	STRAIGHT		2-42
	S2-B-2	STRAIGHT		2-43
	C2-A-1	CLEVIS		2-44
	C2-A-2	CLEVIS		2-45
	D2-B-1	DOGBONE		2-46
	D2-B-2	DOGBONE	0.5	2-47

ALL TESTS: 7075-T651 ALUMINUM
PINS LUBRICATED; NOMINAL DIA. CLEAR. = .0015 IN.
AXIAL LOADING
PERIODIC 30% OVERLOAD SEQUENCE
 $\sigma_{\max} = P_{\max} / (2 R_0 B)$

TABLE 2-28. CRACK GROWTH DATA FOR SPECIMEN T1-A-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	8000	0.028	0.028	0.000	0.000	1.009
3	16000	0.034	0.035	0.000	0.000	1.026
4	24000	0.055	0.060	0.000	0.000	1.085
5	28000	0.068	0.076	0.000	0.000	1.123
6	32000	0.087	0.102	0.000	0.000	1.177
7	36000	0.112	0.140	0.000	0.000	1.248
8	40000	0.135	0.177	0.000	0.000	1.313
9	44000	0.164	0.229 (1)	0.000	0.000	1.396
10	48000	0.201	0.283	0.000	0.000	1.408
11	52000	0.241	0.340	0.000	0.000	1.411
12	56000	0.285	0.398	0.000	0.000	1.396
13	60000	0.332	0.463	0.000	0.000	1.395
14	64000	0.378	0.523	0.000	0.000	1.384
15	68000	0.436	0.608	0.000	0.000	1.394
16	72000	0.504	0.682	0.000	0.000	1.353
17	74000	0.548	0.723	0.000	0.000	1.319
18	76000	0.593	0.767	0.000	0.000	1.293
19	78000	0.640	0.814	0.000	0.000	1.272
20	80000	0.840	0.876	0.000	0.454	1.043
21	81980	1.228	0.937	0.000	0.760	0.763

TABLE 2-29. CRACK GROWTH DATA FOR SPECIMEN T1-A-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	3993	0.030	0.034	0.000	0.000	1.138
3	11990	0.047	0.075	0.000	0.000	1.605
4	19990	0.066	0.140	0.000	0.000	2.128
5	23990	0.080	0.201 (1)	0.000	0.000	2.513
6	27990	0.094	0.220	0.000	0.000	2.340
7	31990	0.115	0.239	0.000	0.000	2.078
8	35990	0.135	0.259	0.000	0.000	1.919
9	39990	0.158	0.280	0.000	0.000	1.772
10	43990	0.180	0.301	0.000	0.000	1.672
11	47990	0.202	0.327	0.000	0.000	1.619
12	51990	0.227	0.355	0.000	0.000	1.564
13	55990	0.254	0.380	0.000	0.000	1.496
14	59990	0.282	0.402	0.000	0.000	1.426
15	63990	0.302	0.429	0.000	0.000	1.421
16	65990	0.340	0.489	0.000	0.000	1.438
17	67990	0.360	0.523	0.000	0.000	1.453
18	69990	0.382	0.553	0.000	0.000	1.448
19	71990	0.405	0.589	0.000	0.000	1.454
20	73990	0.428	0.622	0.000	0.000	1.453
21	75990	0.453	0.659	0.000	0.000	1.455
22	77990	0.480	0.688	0.000	0.000	1.433
23	79990	0.511	0.725	0.000	0.000	1.419
24	81990	0.545	0.758	0.000	0.000	1.391
25	83990	0.594	0.795	0.000	0.000	1.338
26	85990	0.735	0.835	0.000	0.177	1.136
27	87990	0.868	0.900	0.000	0.505	1.037
28	89890	1.003	0.950	0.000	0.663	0.947

TABLE 2-30. CRACK GROWTH DATA FOR SPECIMEN D1-A-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	ΔS (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1756	0.033	0.034	0.000	0.000	1.022
3	3756	0.044	0.046	0.000	0.000	1.052
4	5756	0.057	0.062	0.000	0.000	1.088
5	7756	0.074	0.084	0.000	0.000	1.135
6	9756	0.092	0.109	0.000	0.000	1.184
7	11760	0.115	0.143	0.000	0.000	1.248
8	13760	0.136	0.177	0.000	0.000	1.306
9	15760	0.162	0.223 (1)	0.000	0.000	1.377
10	17760	0.188	0.260	0.000	0.000	1.383
11	19760	0.210	0.302	0.000	0.000	1.438
12	21760	0.233	0.345	0.000	0.000	1.481
13	23760	0.263	0.392	0.000	0.000	1.490
14	25760	0.291	0.436	0.000	0.000	1.498
15	27760	0.319	0.474	0.000	0.000	1.486
16	29760	0.348	0.515	0.000	0.000	1.480
17	31760	0.376	0.515	0.000	0.000	1.370
18	33760	0.408	0.566	0.000	0.000	1.387
19	35760	0.446	0.603	0.000	0.000	1.352
20	37760	0.484	0.642	0.000	0.000	1.326
21	39760	0.529	0.680	0.000	0.000	1.285
22	41760	0.580	0.728	0.000	0.000	1.255
23	43760	0.648	0.775	0.000	0.205	1.196
24	45760	0.768	0.858	0.000	0.499	1.117
25	46750	4.148	0.876	0.000	0.866	0.211

TABLE 2-31. CRACK GROWTH DATA FOR SPECIMEN D1-A-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	339	0.026	0.026	0.000	0.000	1.006
3	2339	0.032	0.033	0.000	0.000	1.039
4	4339	0.040	0.043	0.000	0.000	1.085
5	6339	0.052	0.060	0.000	0.000	1.152
6	8339	0.067	0.083	0.000	0.000	1.237
7	10340	0.083	0.110	0.000	0.000	1.327
8	12340	0.102	0.146	0.000	0.000	1.434
9	14340	0.125	0.195	0.000	0.000	1.563
10	16340	0.145	0.243 (1)	0.000	0.000	1.676
11	18340	0.165	0.279	0.000	0.000	1.691
12	20340	0.192	0.317	0.000	0.000	1.651
13	22340	0.220	0.344	0.000	0.000	1.564
14	24340	0.245	0.382	0.000	0.000	1.559
15	26340	0.270	0.423	0.000	0.000	1.567
16	28340	0.298	0.465	0.000	0.000	1.560
17	30340	0.326	0.499	0.000	0.000	1.531
18	32340	0.356	0.525	0.000	0.000	1.475
19	34340	0.422	0.584	0.000	0.000	1.384
20	36340	0.422	0.584	0.000	0.000	1.384
21	38340	0.458	0.623	0.000	0.000	1.360
22	40340	0.498	0.669	0.000	0.000	1.343
23	42340	0.545	0.731	0.000	0.000	1.341
24	44340	0.626	0.798	0.000	0.048	1.274
25	46340	0.721	0.909	0.000	0.453	1.261
26	47390	1.046	0.923	0.000	0.740	0.883

TABLE 2-32. CRACK GROWTH DATA FOR SPECIMEN C1-A-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	5021	0.036	0.037	0.000	0.000	1.025
3	9021	0.038	0.039	0.000	0.000	1.030
4	13020	0.053	0.056	0.000	0.000	1.064
5	17020	0.069	0.076 (1)	0.000	0.000	1.101
6	21020	0.094	0.108	0.000	0.000	1.149
7	25020	0.127	0.149	0.000	0.000	1.173
8	29020	0.158	0.202	0.000	0.000	1.278
9	33020	0.213	0.275	0.000	0.000	1.291
10	37020	0.279	0.355	0.000	0.000	1.272
11	41020	0.360	0.468	0.000	0.000	1.300
12	44270	0.453	0.702	0.318	0.000	1.550

TABLE 2-33. CRACK GROWTH DATA FOR SPECIMEN C1-A-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	2084	0.030	0.031	0.000	0.000	1.044
3	10080	0.050	0.051 (1)	0.000	0.000	1.220
4	18080	0.097	0.114	0.000	0.000	1.175
5	26080	0.181	0.211	0.000	0.000	1.166
6	34080	0.279	0.339	0.000	0.000	1.215
7	38080	0.382	0.412	0.000	0.000	1.079
8	40080	0.449	0.441	0.000	0.000	0.982
9	42080	0.525	0.475	0.000	0.000	0.905
10	42270	0.584	0.595	0.317	0.000	1.019

TABLE 2-34. CRACK GROWTH DATA FOR SPECIMEN T2-A-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	6372	0.033	0.034	0.000	0.000	1.021
3	10370	0.040	0.042	0.000	0.000	1.040
4	14370	0.047	0.050	0.000	0.000	1.059
5	18370	0.057	0.062	0.000	0.000	1.085
6	22370	0.075	0.085 (1)	0.000	0.000	1.133
7	24370	0.082	0.099	0.000	0.000	1.207
8	26370	0.094	0.118	0.000	0.000	1.255
9	28370	0.106	0.135	0.000	0.000	1.274
10	30370	0.125	0.150	0.000	0.000	1.200
11	32370	0.144	0.163	0.000	0.000	1.132
12	34370	0.164	0.175	0.000	0.000	1.067
13	36370	0.185	0.190	0.000	0.000	1.027
14	38370	0.205	0.209	0.000	0.000	1.020
15	40370	0.224	0.218	0.000	0.000	0.773
16	42370	0.245	0.228	0.000	0.000	0.931
17	44370	0.264	0.239	0.000	0.000	0.905
18	46370	0.283	0.250	0.000	0.000	0.883
19	48370	0.302	0.262	0.000	0.000	0.868
20	50370	0.321	0.274	0.000	0.000	0.854
21	52370	0.342	0.285	0.000	0.000	0.833
22	54370	0.363	0.296	0.000	0.000	0.815
23	56370	0.385	0.307	0.000	0.000	0.797
24	58370	0.409	0.322	0.000	0.000	0.787
25	60370	0.433	0.339	0.000	0.000	0.783
26	62370	0.460	0.362	0.000	0.000	0.787
27	64370	0.491	0.385	0.000	0.000	0.784
28	66370	0.527	0.410	0.000	0.000	0.778
29	68370	0.576	0.435	0.000	0.000	0.755
30	70370	0.760	0.490	0.000	0.280	0.644
31	72310	1.104	0.560	0.000	0.462	0.507

TABLE 2-35. CRACK GROWTH DATA FOR SPECIMEN T2-A-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	412	0.026	0.026	0.000	0.000	1.000
3	4412	0.035	0.035	0.000	0.000	1.008
4	8412	0.046	0.047	0.000	0.000	1.016
5	12410	0.072	0.075	0.000	0.000	1.036
6	16410	0.113	0.121	0.000	0.000	1.067
7	20410	0.153	0.168 (1)	0.000	0.000	1.098
8	22410	0.173	0.183	0.000	0.000	1.058
9	24410	0.191	0.198	0.000	0.000	1.037
10	26410	0.211	0.213	0.000	0.000	1.009
11	28410	0.232	0.230	0.000	0.000	0.991
12	30410	0.253	0.247	0.000	0.000	0.976
13	32410	0.277	0.270	0.000	0.000	0.975
14	34410	0.302	0.294	0.000	0.000	0.974
15	36410	0.326	0.322	0.000	0.000	0.988
16	38410	0.354	0.344	0.000	0.000	0.972
17	40410	0.385	0.368	0.000	0.000	0.956
18	42410	0.422	0.398	0.000	0.000	0.943
19	44410	0.460	0.430	0.000	0.000	0.935
20	46410	0.503	0.462	0.000	0.000	0.919
21	48410	0.567	0.504	0.000	0.000	0.889
22	50410	0.821	0.577	0.000	0.375	0.703
23	52130	0.967	0.742	0.000	0.567	0.767

TABLE 2-36. CRACK GROWTH DATA FOR SPECIMEN S2-A-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	2689	0.037	0.038	0.000	0.000	1.027
3	4689	0.049	0.052	0.000	0.000	1.061
4	6689	0.066	0.071	0.000	0.000	1.076
5	8689	0.087	0.094	0.000	0.000	1.080
6	10690	0.106	0.116 (1)	0.000	0.000	1.094
7	12690	0.130	0.140	0.000	0.000	1.077
8	14690	0.155	0.156	0.000	0.000	1.006
9	16690	0.176	0.176	0.000	0.000	1.000
10	18690	0.196	0.193	0.000	0.000	0.985
11	20690	0.222	0.217	0.000	0.000	0.978
12	22690	0.248	0.245	0.000	0.000	0.988
13	24690	0.272	0.275	0.000	0.000	1.011
14	26690	0.300	0.305	0.000	0.000	1.017
15	28690	0.333	0.338	0.000	0.000	1.015
16	30690	0.363	0.361	0.000	0.000	0.994
17	32690	0.397	0.390	0.000	0.000	0.982
18	34690	0.436	0.428	0.000	0.000	0.982
19	36690	0.495	0.473	0.000	0.000	0.956
20	38690	0.653	0.544	0.000	0.317	0.833
21	40210	1.017	0.721	0.000	0.615	0.709

TABLE 2-37. CRACK GROWTH DATA FOR SPECIMEN S2-A-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1060	0.026	0.026	0.000	0.000	1.000
3	3060	0.029	0.030	0.000	0.000	1.034
4	5060	0.036	0.040	0.000	0.000	1.111
5	7060	0.043	0.049	0.000	0.000	1.140
6	9060	0.059	0.070 (1)	0.000	0.000	1.186
7	11060	0.079	0.090	0.000	0.000	1.139
8	13060	0.100	0.115	0.000	0.000	1.150
9	15060	0.124	0.148	0.000	0.000	1.194
10	17060	0.151	0.185	0.000	0.000	1.225
11	19060	0.176	0.220	0.000	0.000	1.250
12	21060	0.214	0.270	0.000	0.000	1.262
13	23060	0.243	0.327	0.000	0.000	1.346
14	25060	0.283	0.391	0.000	0.000	1.382
15	27060	0.335	0.449	0.000	0.000	1.340
16	29060	0.389	0.506	0.000	0.000	1.301
17	31060	0.490	0.586	0.000	0.000	1.196
18	32910	0.887	0.795	0.000	0.637	0.896

TABLE 2-38. CRACK GROWTH DATA FOR SPECIMEN D2-A-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	981	0.030	0.030	0.000	0.000	0.988
3	2982	0.039	0.038	0.000	0.000	0.967
4	4982	0.057	0.053	0.000	0.000	0.924
5	6982	0.073	0.065	0.000	0.000	0.886
6	8982	0.094	0.079	0.000	0.000	0.837
7	10980	0.116	0.091 (1)	0.000	0.000	0.785
8	12980	0.140	0.113	0.000	0.000	0.807
9	14980	0.164	0.132	0.000	0.000	0.805
10	16980	0.186	0.154	0.000	0.000	0.828
11	18980	0.210	0.179	0.000	0.000	0.852
12	20980	0.240	0.202	0.000	0.000	0.842
13	22980	0.270	0.238	0.000	0.000	0.882
14	24980	0.299	0.278	0.000	0.000	0.930
15	26980	0.329	0.311	0.000	0.000	0.945
16	28980	0.363	0.354	0.000	0.000	0.975
17	30980	0.399	0.395	0.000	0.000	0.990
18	32980	0.445	0.463	0.000	0.000	1.040
19	34980	0.505	0.529	0.000	0.000	1.048
20	36890	0.688	0.675	0.000	0.429	0.981

TABLE 3-39. CRACK GROWTH DATA FOR SPECIMEN D2-A-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1775	0.035	0.035	0.000	0.000	1.012
3	3775	0.053	0.055	0.000	0.000	1.032
4	5775	0.065	0.068 (1)	0.000	0.000	1.046
5	7775	0.079	0.084	0.000	0.000	1.063
6	9775	0.101	0.098	0.000	0.000	0.970
7	11780	0.120	0.117	0.000	0.000	0.975
8	13780	0.147	0.140	0.000	0.000	0.952
9	15780	0.171	0.160	0.000	0.000	0.936
10	17780	0.198	0.181	0.000	0.000	0.914
11	19780	0.226	0.204	0.000	0.000	0.903
12	21780	0.252	0.230	0.000	0.000	1.036
13	23780	0.282	0.261	0.000	0.000	0.925
14	25780	0.314	0.290	0.000	0.000	0.924
15	27780	0.345	0.325	0.000	0.000	0.942
16	29780	0.382	0.361	0.000	0.000	0.945
17	31780	0.422	0.397	0.000	0.000	0.941
18	33780	0.473	0.447	0.000	0.000	0.945
19	35780	0.553	0.518	0.000	0.145	0.937
20	37680	0.692	0.632	0.000	0.405	0.914

TABLE 2-40. CRACK GROWTH DATA FOR SPECIMEN T2-B-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	8000	0.029	0.031	0.000	0.000	1.069
3	52000	0.042	0.050	0.000	0.000	1.190
4	58000	0.045	0.055 (1)	0.000	0.000	1.222
5	62000	0.051	0.062	0.000	0.000	1.216
6	66000	0.056	0.068	0.000	0.000	1.214
7	70000	0.066	0.077	0.000	0.000	1.167
8	72000	0.070	0.081	0.000	0.000	1.157
9	74000	0.079	0.090	0.000	0.000	1.139
10	76000	0.087	0.102	0.000	0.000	1.172
11	78000	0.100	0.116	0.000	0.000	1.160
12	80000	0.113	0.129	0.000	0.000	1.142
13	82000	0.129	0.146	0.000	0.000	1.132
14	84000	0.147	0.167	0.000	0.000	1.136
15	86000	0.169	0.193	0.000	0.000	1.142
16	88000	0.193	0.222	0.000	0.000	1.150
17	90000	0.221	0.250	0.000	0.000	1.131
18	92000	0.265	0.283	0.000	0.000	1.068
19	94000	0.316	0.312	0.000	0.000	0.987
20	96000	0.377	0.348	0.000	0.000	0.923
21	98000	0.452	0.390	0.000	0.000	0.863
22	100000	0.596	0.435	0.000	0.120	0.730
23	100300	0.765	0.480	0.000	0.318	0.627

TABLE 2-41. CRACK GROWTH DATA FOR SPECIMEN T2-B-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	18300	0.035	0.036	0.000	0.000	1.018
3	46300	0.051	0.053	0.000	0.000	1.048
4	94300	0.070	0.076	0.000	0.000	1.082
5	98300	0.091	0.102	0.000	0.000	1.121
6	100300	0.132	0.158	0.000	0.000	1.196
7	102300	0.159	0.198 (1)	0.000	0.000	1.245
8	104300	0.187	0.223	0.000	0.000	1.193
9	106300	0.223	0.243	0.000	0.000	1.090
10	108300	0.260	0.272	0.000	0.000	1.046
11	110300	0.302	0.302	0.000	0.000	1.000
12	112300	0.352	0.337	0.000	0.000	0.957
13	114300	0.406	0.371	0.000	0.000	0.914
14	116300	0.473	0.412	0.000	0.000	0.871
15	118100	0.565	0.432	0.000	0.000	0.765

TABLE 2-42. CRACK GROWTH DATA FOR SPECIMEN S2-B-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	2000	0.029	0.029	0.000	0.000	1.000
3	4000	0.034	0.035	0.000	0.000	1.029
4	6000	0.046	0.048 (1)	0.000	0.000	1.043
5	8000	0.055	0.059	0.000	0.000	1.073
6	10000	0.066	0.073	0.000	0.000	1.106
7	12000	0.081	0.093	0.000	0.000	1.148
8	14000	0.105	0.114	0.000	0.000	1.086
9	16000	0.137	0.156	0.000	0.000	1.139
10	18000	0.181	0.198	0.000	0.000	1.094
11	20000	0.238	0.255	0.000	0.000	1.071
12	22000	0.305	0.313	0.000	0.000	1.026
13	24000	0.400	0.394	0.000	0.000	0.985
14	25190	0.685	0.415	0.000	0.262	0.606

TABLE 2-43. CRACK GROWTH DATA FOR SPECIMEN S2-B-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	2866	0.026	0.026	0.000	0.000	1.000
3	14870	0.029	0.031	0.000	0.000	1.069
4	18870	0.044	0.054 (1)	0.000	0.000	1.227
5	22870	0.078	0.093	0.000	0.000	1.192
6	26870	0.133	0.165	0.000	0.000	1.241
7	28870	0.174	0.209	0.000	0.000	1.201
8	30870	0.218	0.252	0.000	0.000	1.156
9	32870	0.269	0.293	0.000	0.000	1.089
10	34870	0.333	0.328	0.000	0.000	0.985
11	36870	0.434	0.372	0.000	0.000	0.857
12	38070	0.731	0.425	0.000	0.292	0.582

TABLE 2-44. CRACK GROWTH DATA FOR SPECIMEN C2-A-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	16610	0.053	0.057 (1)	0.000	0.000	1.075
3	20610	0.063	0.071	0.000	0.000	1.127
4	24610	0.076	0.092	0.000	0.000	1.211
5	28610	0.093	0.113	0.000	0.000	1.215
6	32610	0.133	0.164	0.000	0.000	1.233
7	36610	0.242	0.232	0.000	0.000	0.959
8	40610	0.331	0.300	0.000	0.000	1.142
9	42610	0.430	0.378	0.000	0.000	0.879
10	44420	0.510	0.410	0.000	0.000	0.804

TABLE 2-45. CRACK GROWTH DATA FOR SPECIMEN C2-A-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	10340	0.063	0.056 (1)	0.000	0.000	0.889
3	14340	0.088	0.088	0.000	0.000	1.000
4	18340	0.128	0.128	0.000	0.000	1.000
5	22340	0.180	0.173	0.000	0.000	0.961
6	26340	0.268	0.240	0.000	0.000	0.896
7	28340	0.303	0.269	0.000	0.000	0.888
8	30340	0.394	0.355	0.000	0.000	0.901
9	31890	0.543	0.386	0.000	0.079	0.711

TABLE 2-46. CRACK GROWTH DATA FOR SPECIMEN D2-B-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1852	0.037	0.037	0.000	0.000	0.995
3	3852	0.068	0.067	0.000	0.000	0.983
4	5852	0.089	0.087	0.000	0.000	0.974
5	7852	0.113	0.109 (1)	0.000	0.000	0.965
6	9852	0.151	0.151	0.000	0.000	1.000
7	11850	0.188	0.194	0.000	0.000	1.032
8	13850	0.252	0.263	0.000	0.000	1.044
9	15850	0.337	0.346	0.000	0.000	1.027
10	17850	0.452	0.398	0.000	0.000	0.881
11	18650	0.531	0.438	0.000	0.000	0.825

TABLE 2-47: CRACK GROWTH DATA FOR SPECIMEN D2-B-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1244	0.034	0.034	0.000	0.000	0.988
3	3244	0.053	0.051	0.000	0.000	0.964
4	5244	0.088	0.081	0.000	0.000	0.919
5	7244	0.110	0.098 (1)	0.000	0.000	0.891
6	9244	0.147	0.135	0.000	0.000	0.918
7	11240	0.191	0.178	0.000	0.000	0.932
8	13240	0.247	0.229	0.000	0.000	0.927
9	15240	0.318	0.293	0.000	0.000	0.921
10	17240	0.425	0.380	0.000	0.000	0.894
11	18850	1.258	0.417	0.000	0.378	0.332

TABLE 2-48. SUMMARY OF TEST SPECIMENS IN SUBMATRIX (c): LOAD ANGLE, MATERIAL, AND LOAD REVERSAL TESTS

DESCRIPTION OF SPECIMEN AND TEST			SPECIMEN NUMBER	σ_{\max} (KSI)	STRESS RATIO	DATA IN TABLE
7075-T651 ALUM. B = 1.0 IN.	-45° LOAD	STEEL BUSHING	T2-A-3	12.22	0.1	2-49
			T2-A-4	12.22	↑	2-50
	-90° LOAD	NO BUSHING	T1-A-3	9.78	↓	2-51
			T1-A-4	↑	0.1	2-52
			T1-A-5	↓	-0.5	2-53
			T1-A-6	9.78	-0.5	2-54
	-90° LOAD	STEEL BUSHING	T2-A-5	12.22	0.1	2-55
			T2-A-6	↑	0.1	2-56
			T2-A-7	↓	-0.5	2-57
			T2-A-8	12.22	-0.5	2-58
4340 STEEL (180-200 KSI) B = 0.5 IN.	-45° LOAD	NO BUSHING	T1-S-1	26.67	0.1	2-59
			T1-S-2	↑	↑	2-60
		STEEL BUSHING	T2-S-1		↑	2-61
			T2-S-2		↑	2-62
	-90° LOAD	NO BUSHING	T1-S-3			2-63
			T1-S-4			2-64
		STEEL BUSHING	T2-S-3		↓	2-65
			T2-S-4	26.67	0.1	2-66

ALL TESTS: TAPERED LUGS: $R_o/R_i = 2.25$, $R_i = 0.5$ IN.
 PERIODIC 30% OVERLOAD SEQUENCE
 LUBRICATED PINS
 $\sigma_{\max} = P_{\max} / (2 R_o B)$

TABLE 2-49. CRACK GROWTH DATA FOR SPECIMEN T2-A-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	3000	0.052	0.054	0.000	0.000	1.031
3	5000	0.080	0.085 (1)	0.000	0.000	1.063
4	7000	0.130	0.140	0.000	0.000	1.077
5	9000	0.170	0.209	0.000	0.000	1.229
6	11000	0.252	0.288	0.000	0.000	1.143
7	13000	0.336	0.398	0.000	0.000	1.185
8	14908	0.504	0.532	0.000	0.000	1.056

TABLE 2-50. CRACK GROWTH DATA FOR SPECIMEN T2-A-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1000	0.032	0.032	0.000	0.000	1.000
3	3000	0.051	0.051	0.000	0.000	1.000
4	5000	0.102	0.102 (1)	0.000	0.000	1.000
5	7000	0.154	0.165	0.000	0.000	1.071
6	9000	0.234	0.248	0.000	0.000	1.060
7	11000	0.330	0.358	0.000	0.000	1.085
8	13000	0.460	0.490	0.000	0.000	1.065
9	13566	0.666	0.620	0.000	0.374	0.931

TABLE 2-51. CRACK GROWTH DATA FOR SPECIMEN T1-A-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	6000	0.051	0.072 (1)	0.000	0.000	1.412
3	8000	0.064	0.087	0.000	0.000	1.359
4	12000	0.097	0.110	0.000	0.000	1.134
5	14000	0.114	0.125	0.000	0.000	1.096
6	18000	0.151	0.162	0.000	0.000	1.073
7	22000	0.188	0.202	0.000	0.000	1.074
8	26000	0.227	0.232	0.000	0.000	1.022
9	30000	0.270	0.265	0.000	0.000	0.981
10	34000	0.310	0.315	0.000	0.000	1.016
11	38000	0.357	0.370	0.000	0.000	1.036
12	42000	0.402	0.415	0.000	0.000	1.032
13	46000	0.453	0.491	0.000	0.000	1.084
14	50000	0.509	0.564	0.000	0.000	1.108
15	54000	0.576	0.695	0.000	0.000	1.207
16	56000	0.610	0.800	0.000	0.000	1.311
17	58000	0.652	0.884	0.000	0.000	1.356
18	60000	0.696	1.005	0.071	0.000	1.444
19	62000	0.752	1.070	0.268	0.000	1.423
20	64000	0.802	1.171	0.417	0.000	1.460
21	66000	0.858	1.473	0.630	0.000	1.717
22	68000	0.935	1.813	0.780	0.000	1.940
23	70000	0.998	2.436	0.910	0.000	2.440
24	72000	1.075	-	1.030	0.000	-
25	74000	1.150	-	1.130	0.000	-
26	76000	1.235	-	1.230	0.000	-
27	78000	1.325	-	1.330	0.000	-
28	80000	1.430	-	1.430	0.000	-
29	82000	1.500	-	1.500	0.000	-
30	84000	1.580	-	1.580	0.000	-
31	86000	1.640	-	1.640	0.000	-
32	88000	1.700	-	1.700	0.000	-
33	123504	2.100	-	2.100	0.000	-

TABLE 2-52. CRACK GROWTH DATA FOR SPECIMEN T1-A-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1000	0.030	0.033 (1)	0.000	0.000	1.100
3	3000	0.038	0.041	0.000	0.000	1.079
4	5000	0.053	0.061	0.000	0.000	1.153
5	7000	0.070	0.087	0.000	0.000	1.238
6	11000	0.079	0.101	0.000	0.000	1.282
7	19000	0.082	0.106	0.000	0.000	1.297
8	21000	0.115	0.168	0.000	0.000	1.461
9	23000	0.127	0.176	0.000	0.000	1.386
10	31000	0.177	0.206	0.000	0.000	1.164
11	39000	0.240	0.274	0.000	0.000	1.142
12	47000	0.326	0.366	0.000	0.000	1.123
13	55000	0.421	0.458	0.000	0.000	1.088
14	63000	0.531	0.622	0.000	0.000	1.171
15	67000	0.593	0.777	0.000	0.000	1.310
16	69000	0.636	0.875	0.000	0.000	1.376
17	71000	0.679	0.992	0.000	0.000	1.461
18	73000	0.728	1.017	0.133	0.000	1.397
19	75000	0.785	1.110	0.341	0.000	1.414
20	77000	0.845	1.230	0.492	0.000	1.456
21	79000	0.918	1.418	0.651	0.000	1.545
22	81000	1.006	1.590	0.782	0.000	1.580
23	83000	1.101	1.820	0.920	0.000	1.653
24	85000	1.202	2.227	1.074	0.000	1.853
25	87000	1.298	2.676	1.204	0.000	2.062
26	89000	1.400	3.541	1.343	0.000	2.529
27	91000	1.540	-	1.486	0.000	-
28	93000	1.650	-	1.610	0.000	-
29	129955	3.200	-	3.200	0.000	-

TABLE 2-53. CRACK GROWTH DATA FOR SPECIMEN T1-A-5

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	11000	0.088	0.111 (1)	0.000	0.000	1.261
3	15000	0.103	0.131	0.000	0.000	1.272
4	19000	0.121	0.155	0.000	0.000	1.281
5	23000	0.141	0.177	0.000	0.000	1.255
6	31000	0.188	0.244	0.000	0.000	1.298
7	39000	0.263	0.330	0.000	0.000	1.255
8	47000	0.356	0.429	0.000	0.000	1.205
9	51000	0.456	0.502	0.000	0.000	1.101
10	53000	0.507	0.548	0.000	0.000	1.081
11	55000	0.565	0.580	0.000	0.000	1.027
12	57000	0.773	0.755	0.000	0.000	0.977
13	59000	0.773	0.817	0.000	0.000	1.057
14	61000	0.773	0.885	0.000	0.000	1.145
15	63000	0.773	1.230	0.450	0.000	1.591
16	65000	0.773	-	0.950	0.000	-
17	67000	0.773	-	1.300	0.000	-
18	69000	0.773	-	1.540	0.000	-
19	71000	0.773	-	1.720	0.000	-
20	73000	0.773	-	1.870	0.000	-
21	75000	0.773	-	1.990	0.000	-
22	77000	0.773	-	2.090	0.000	-
23	79000	0.773	-	2.200	0.000	-
24	81000	0.773	-	2.330	0.000	-
25	130197	2.750	-	3.100	0.000	-

TABLE 2-54. CRACK GROWTH DATA FOR SPECIMEN T1-A-6

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	11000	0.085	0.084 (1)	0.000	0.000	0.992
3	13000	0.097	0.096	0.000	0.000	0.991
4	25000	0.119	0.118	0.000	0.000	0.988
5	29000	0.141	0.139	0.000	0.000	0.985
6	35000	0.183	0.179	0.000	0.000	0.980
7	39000	0.215	0.210	0.000	0.000	0.976
8	51000	0.320	0.308	0.000	0.000	0.962
9	59000	0.432	0.410	0.000	0.000	0.950
10	65000	0.560	0.524	0.000	0.000	0.936
11	75000	0.685	0.663	0.000	0.000	0.968
12	79000	0.773	0.756	0.000	0.000	0.978
13	81000	0.815	0.825	0.000	0.000	1.012
14	83000	0.868	0.940	0.000	0.000	1.083
15	85000	0.950	2.239	0.850	0.000	2.357
16	87000	1.067	-	1.160	0.000	-
17	89000	1.180	-	1.370	0.000	-
18	91000	1.320	-	1.540	0.000	-
19	93000	1.450	-	1.720	0.000	-
20	95000	1.580	-	1.850	0.000	-
21	97000	1.700	-	1.930	0.000	-
22	99000	1.820	-	2.100	0.000	-
23	101000	1.910	-	2.190	0.000	-
24	103000	1.990	-	2.270	0.000	-
25	105000	2.100	-	2.380	0.000	-
26	107000	2.200	-	2.480	0.000	-
27	109000	2.300	-	2.580	0.000	-
28	118935	3.200	-	3.200	0.000	-

TABLE 2-55. CRACK GROWTH DATA FOR SPECIMEN T2-A-5

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1600	0.033	0.033	0.000	0.000	1.000
3	3600	0.052	0.050 (1)	0.000	0.000	0.956
4	5500	0.072	0.066	0.000	0.000	0.923
5	7600	0.096	0.085	0.000	0.000	0.884
6	9600	0.121	0.102	0.000	0.000	0.843
7	13600	0.165	0.134	0.000	0.000	0.812
8	17600	0.207	0.170	0.000	0.000	0.821
9	21600	0.264	0.238	0.000	0.000	0.901
10	25600	0.332	0.291	0.000	0.000	0.877
11	29600	0.399	0.334	0.000	0.000	0.837
12	33600	0.478	0.372	0.000	0.000	0.778
13	37600	0.562	0.428	0.000	0.000	0.762
14	41600	0.660	0.520	0.000	0.000	0.788
15	45600	0.776	0.683	0.000	0.000	0.880
16	47600	0.856	0.898	0.000	0.000	1.049
17	49600	1.100	1.984	0.950	0.000	1.803
18	51600	1.500	-	1.500	0.000	-
19	53600	2.500	-	2.500	0.000	-
20	65442	3.200	-	3.200	0.000	-

TABLE 2-56. CRACK GROWTH DATA FOR SPECIMEN T2-A-6

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	4800	0.062	0.058	0.000	0.000	0.937
3	6800	0.080	0.073	0.000	0.000	0.906
4	8800	0.104	0.090 (1)	0.000	0.000	0.865
5	10800	0.127	0.110	0.000	0.000	0.866
6	12800	0.148	0.125	0.000	0.000	0.845
7	16800	0.198	0.163	0.000	0.000	0.823
8	20800	0.245	0.212	0.000	0.000	0.865
9	24800	0.294	0.270	0.000	0.000	0.918
10	28800	0.348	0.329	0.000	0.000	0.945
11	32800	0.405	0.383	0.000	0.000	0.946
12	36800	0.467	0.442	0.000	0.000	0.947
13	40800	0.538	0.536	0.000	0.000	0.996
14	44800	0.624	0.604	0.000	0.000	0.968
15	48800	0.723	0.700	0.000	0.000	0.968
16	50800	0.803	0.814	0.000	0.000	1.014
17	52800	0.897	1.069	0.317	0.000	1.192
18	54800	1.170	-	1.170	0.000	-
19	56800	1.290	-	1.290	0.000	-
20	62066	2.380	-	2.380	0.000	-

TABLE 2-57. CRACK GROWTH DATA FOR SPECIMEN T2-A-7

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	3000	0.035	0.035	0.000	0.000	1.000
3	9000	0.060	0.060 (1)	0.000	0.000	1.000
4	15000	0.083	0.083	0.000	0.000	1.000
5	19000	0.107	0.106	0.000	0.000	0.993
6	23000	0.150	0.148	0.000	0.000	0.989
7	27000	0.208	0.205	0.000	0.000	0.984
8	31000	0.263	0.258	0.000	0.000	0.980
9	35000	0.338	0.329	0.000	0.000	0.973
10	39000	0.436	0.421	0.000	0.000	0.965
11	41000	0.484	0.465	0.000	0.000	0.961
12	43000	0.544	0.531	0.000	0.000	0.976
13	45000	0.610	0.605	0.000	0.000	0.992
14	47000	0.683	0.726	0.000	0.000	1.063
15	49000	0.774	0.870	0.000	0.000	1.124
16	51000	0.971	-	1.050	0.000	-
17	66442	2.900	-	3.200	0.000	-

TABLE 2-58. CRACK GROWTH DATA FOR SPECIMEN T2-A-8

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	3000	0.035	0.036	0.000	0.000	1.022
3	7000	0.057	0.061 (1)	0.000	0.000	1.070
4	9000	0.081	0.086	0.000	0.000	1.061
5	11000	0.093	0.098	0.000	0.000	1.056
6	13000	0.115	0.120	0.000	0.000	1.048
7	21000	0.211	0.213	0.000	0.000	1.010
8	23000	0.238	0.238	0.000	0.000	1.000
9	27000	0.298	0.291	0.000	0.000	0.977
10	31000	0.362	0.345	0.000	0.000	0.952
11	35000	0.438	0.404	0.000	0.000	0.922
12	37000	0.480	0.435	0.000	0.000	0.906
13	39000	0.524	0.472	0.000	0.000	0.901
14	41000	0.570	0.517	0.000	0.000	0.907
15	43000	0.622	0.578	0.000	0.000	0.929
16	45000	0.679	0.681	0.000	0.000	1.003
17	47000	0.745	0.832	0.000	0.000	1.117
18	49000	0.830	1.017	0.150	0.000	1.225
19	51000	0.933	1.184	0.500	0.000	1.270
20	53000	1.040	1.404	0.730	0.000	1.350
21	57000	1.280	2.874	1.200	0.000	2.245
22	59000	1.430	-	1.500	0.000	-
23	60958	3.200	-	3.200	0.000	-

TABLE 2-59. CRACK GROWTH DATA FOR SPECIMEN T1-S-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	2000	0.028	0.028	0.000	0.000	1.000
3	4000	0.033	0.033	0.000	0.000	1.000
4	6000	0.036	0.037	0.000	0.000	1.015
5	8000	0.043	0.044	0.000	0.000	1.024
6	10000	0.048	0.049	0.000	0.000	1.031
7	12000	0.056	0.058	0.000	0.000	1.041
8	14000	0.065	0.068	0.000	0.000	1.053
9	16000	0.075	0.080 (1)	0.000	0.000	1.067
10	18000	0.086	0.091	0.000	0.000	1.058
11	20000	0.100	0.106	0.000	0.000	1.060
12	22000	0.115	0.128	0.000	0.000	1.113
13	24000	0.129	0.148	0.000	0.000	1.147
14	26000	0.146	0.170	0.000	0.000	1.164
15	28000	0.164	0.193	0.000	0.000	1.177
16	30000	0.184	0.220	0.000	0.000	1.196
17	32000	0.206	0.253	0.000	0.000	1.228
18	34000	0.229	0.286	0.000	0.000	1.249
19	36000	0.251	0.318	0.000	0.000	1.267
20	38000	0.271	0.350	0.000	0.000	1.292
21	40000	0.294	0.400	0.000	0.000	1.361
22	44000	0.380	0.660	0.250	0.000	1.747
23	46000	0.430	0.721	0.310	0.000	1.678
24	48000	0.510	0.930	0.430	0.000	1.823
25	49680	0.600	1.251	0.550	0.000	2.085

TABLE 2-60. CRACK GROWTH DATA FOR SPECIMEN T1-S-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	4183	0.035	0.043 (1)	0.000	0.000	1.229
3	8183	0.051	0.057	0.000	0.000	1.118
4	12180	0.068	0.078	0.000	0.000	1.147
5	16180	0.091	0.104	0.000	0.000	1.143
6	20180	0.117	0.140	0.000	0.000	1.197
7	24180	0.151	0.181	0.000	0.000	1.199
8	28180	0.189	0.228	0.000	0.000	1.206
9	32180	0.232	0.298	0.000	0.000	1.284
10	34180	0.259	0.335	0.000	0.000	1.293
11	36180	0.283	0.363	0.000	0.000	1.283
12	38180	0.313	0.400	0.000	0.000	1.278
13	40180	0.339	0.438	0.000	0.000	1.292
14	42180	0.373	0.470	0.000	0.000	1.260
15	44183	0.410	0.631	0.250	0.000	1.539
16	46183	0.460	0.771	0.350	0.000	1.675
17	48154	0.600	-	0.600	0.000	-

TABLE 2-61. CRACK GROWTH DATA FOR SPECIMEN T2-S-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	5237	0.035	0.034	0.000	0.000	0.971
3	9237	0.043	0.041 (1)	0.000	0.000	0.953
4	13240	0.057	0.054	0.000	0.000	0.947
5	17240	0.077	0.071	0.000	0.000	0.922
6	21240	0.097	0.095	0.000	0.000	0.979
7	25240	0.127	0.127	0.000	0.000	1.000
8	29240	0.166	0.176	0.000	0.000	1.060
9	33240	0.192	0.260	0.000	0.000	1.354
10	35240	0.220	0.276	0.000	0.000	1.255
11	37240	0.250	0.314	0.000	0.000	1.256
12	39240	0.283	0.355	0.000	0.000	1.254
13	41240	0.320	0.398	0.000	0.000	1.244
14	43040	0.349	0.484	0.000	0.000	1.387

TABLE 2-62. CRACK GROWTH DATA FOR SPECIMEN T2-S-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1563	0.027	0.027	0.000	0.000	1.000
3	5563	0.037	0.037	0.000	0.000	1.000
4	9563	0.043	0.044	0.000	0.000	1.018
5	13560	0.061	0.063	0.000	0.000	1.036
6	17560	0.090	0.096	0.000	0.000	1.065
7	21560	0.124	0.136	0.000	0.000	1.099
8	25560	0.168	0.192 (1)	0.000	0.000	1.143
9	29560	0.194	0.221	0.000	0.000	1.139
10	31560	0.220	0.256	0.000	0.000	1.164
11	33560	0.250	0.295	0.000	0.000	1.180
12	35560	0.285	0.338	0.000	0.000	1.186
13	37560	0.323	0.386	0.000	0.000	1.195
14	39560	0.365	0.430	0.000	0.000	1.178
15	40610	0.395	0.455	0.000	0.000	1.152

TABLE 2-63. CRACK GROWTH DATA FOR SPECIMEN 11-S-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	6500	0.078	0.080	0.000	0.000	1.020
3	8500	0.095	0.097	0.000	0.000	1.026
4	10500	0.148	0.155	0.000	0.000	1.046
5	12500	0.176	0.186	0.000	0.000	1.056
6	20500	0.311	0.344 (1)	0.000	0.000	1.106
7	22500	0.337	0.381	0.000	0.000	1.131
8	24500	0.368	0.417	0.000	0.000	1.133
9	26500	0.400	0.505	0.000	0.000	1.263
10	28500	0.446	0.528	0.130	0.000	1.184
11	30500	0.496	0.569	0.228	0.000	1.146
12	32500	0.563	0.552	0.228	0.000	0.981
13	34500	0.631	0.542	0.228	0.000	0.858
14	36500	0.698	0.534	0.228	0.000	0.765
15	38500	0.763	0.529	0.228	0.000	0.694
16	40500	0.821	0.526	0.228	0.000	0.640
17	44500	0.921	0.521	0.228	0.000	0.566
18	48500	1.014	0.518	0.228	0.000	0.511
19	52500	1.178	0.515	0.228	0.000	0.437
20	56500	1.326	0.513	0.228	0.000	0.387
21	60500	1.490	0.511	0.228	0.000	0.343
22	64500	1.640	0.741	1.200	0.000	0.452
23	129900	3.300	-	3.300	0.000	-

TABLE 2-64. CRACK GROWTH DATA FOR SPECIMEN T1-S-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1408	0.035	0.035	0.000	0.000	1.000
3	3408	0.051	0.050	0.000	0.000	0.974
4	5408	0.061	0.059	0.000	0.000	0.963
5	7408	0.088	0.082	0.000	0.000	0.936
6	9408	0.109	0.100 (1)	0.000	0.000	0.917
7	11410	0.131	0.122	0.000	0.000	0.931
8	13410	0.153	0.154	0.000	0.000	1.007
9	15410	0.175	0.194	0.000	0.000	1.109
10	17410	0.198	0.256	0.000	0.000	1.292
11	19410	0.219	0.323	0.000	0.000	1.475
12	21408	0.233	0.355	0.000	0.000	1.524
13	23408	0.253	0.387	0.000	0.000	1.530
14	25408	0.276	0.432	0.000	0.000	1.565
15	27408	0.303	0.474	0.000	0.000	1.565
16	29408	0.353	-	-	0.000	-
17	31408	0.379	-	-	0.000	-
18	33408	0.415	-	0.469	0.000	-
19	35408	0.466	-	0.546	0.000	-
20	37408	-	-	0.628	0.000	-
21	39408	-	-	0.709	0.000	-
22	43408	-	-	0.826	0.000	-
23	47408	-	-	0.912	0.000	-
24	51408	-	-	0.995	0.000	-
25	55408	-	-	1.078	0.000	-
26	59408	-	-	1.155	0.000	-
27	63408	-	-	1.242	0.000	-
28	67408	-	-	1.334	0.000	-
29	69408	-	-	1.387	0.000	-
30	71408	-	-	1.447	0.000	-
31	72816	-	-	1.561	0.000	-

TABLE 2-65. CRACK GROWTH DATA FOR SPECIMEN T2-S-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	2000	0.033	0.032	0.000	0.000	0.970
3	4000	0.043	0.042	0.000	0.000	0.977
4	6000	0.058	0.055	0.000	0.000	0.948
5	8000	0.066	0.064	0.000	0.000	0.970
6	10000	0.072	0.072	0.000	0.000	1.000
7	14000	0.039	0.037	0.000	0.000	0.978
8	20000	0.110	0.115	0.000	0.000	1.045
9	26000	0.135	0.141	0.000	0.000	1.044
10	30000	0.155	0.161	0.000	0.000	1.039
11	36000	0.198	0.214	0.000	0.000	1.081
12	40000	0.228	0.247	0.000	0.000	1.083
13	44000	0.264	0.281	0.000	0.000	1.064
14	48000	0.303	0.329	0.000	0.000	1.086
15	52000	0.347	0.406	0.000	0.000	1.170
16	56000	0.399	0.477	0.000	0.000	1.195
17	58000	0.426	-	-	-	-
18	60000	0.457	-	-	-	-
19	91618	4.100	-	4.100	0.000	-

TABLE 2-66. CRACK GROWTH DATA FOR SPECIMEN T2-S-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	845	0.027	0.028	0.000	0.000	1.037
3	4845	0.033	0.040 (1)	0.000	0.000	1.212
4	8845	0.045	0.040	0.000	0.000	0.889
5	12850	0.060	0.065	0.000	0.000	1.083
6	16850	0.082	0.079	0.000	0.000	0.963
7	20850	0.102	0.096	0.000	0.000	0.941
8	24850	0.123	0.113	0.000	0.000	0.919
9	28850	0.148	0.136	0.000	0.000	0.919
10	30850	0.163	0.151	0.000	0.000	0.926
11	32850	0.177	0.172	0.000	0.000	0.972
12	34850	0.194	0.191	0.000	0.000	0.984
13	36850	0.210	0.218	0.000	0.000	1.038
14	38850	0.228	0.242	0.000	0.000	1.061
15	40850	0.248	0.272	0.000	0.000	1.097
16	42850	0.266	0.302	0.000	0.000	1.135
17	44850	0.289	0.346	0.000	0.000	1.197
18	46850	0.316	0.400	0.000	0.000	1.266
19	48850	0.346	0.453	0.000	0.000	1.309
20	50850	0.374	-	0.000	0.000	-
21	83923	4.000	-	4.000	0.000	-

TABLE 2-67. SUMMARY OF TEST SPECIMENS IN SUBMATRIX (d): SIZE, SPECTRUM LOADING, THICK LUGS, WING-PYLON LUG TESTS

DESCRIPTION OF SPECIMEN AND TEST		SPECIMEN NUMBER	PIN DIAMETER (INCH)	R = 0.1 OR 80-FLT SPECTRUM	DATA IN TABLE
STRAIGHT LUG AXIAL LOADING NO BUSHING $R_o/R_i = 2.0$ $B/R_i = 3.0$	$\sigma_{max} = 7.0 \text{ KSI}$	S3-A-1	0.625	0.1	2-68
		S3-A-2	0.625		2-69
		S3-B-1	1.0		2-70
		S3-B-2	1.0		2-71
		S3-C-1	1.5		2-72
		S3-C-2	1.5	0.1	2-73
	$\sigma_{max} = 12.0 \text{ KSI}$	S3-A-3	0.625	80-FLT	2-74
		S3-A-4	0.625		2-75
		S3-B-3	1.0		2-76
		S3-B-4	1.0		2-77
		S3-C-3	1.5		2-78
		S3-C-4	1.5		2-79
SIMULATED WING-PYLON LUG WITH STEEL BUSHING 23° LOAD DIRECTION $P_{max} = 34.2 \text{ KIP}$, $B = 0.626 \text{ IN.}$		R2-E-1	1.0		2-80
		R2-E-2	1.0	80-FLT	2-81

ALL TESTS: 7075-T6 ALUMINUM
PINS LUBRICATED
 $\sigma_{max} = P_{max} / (2R_o B)$

TABLE 2-68. CRACK GROWTH DATA FOR SPECIMEN S3-A-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	1350	0.027	0.027	0.000	0.000	1.000
3	5350	0.036	0.036	0.000	0.000	1.000
4	9350	0.063	0.065	0.000	0.000	1.032
5	13350	0.089	0.094	0.000	0.000	1.053
6	15350	0.102	0.109	0.000	0.000	1.064
7	17350	0.117	0.126	0.000	0.000	1.076
8	19350	0.140	0.153	0.000	0.000	1.096
9	21350	0.169	0.189	0.000	0.000	1.120
10	23350	0.198	0.226	0.000	0.000	1.144
11	25350	0.232	0.272	0.000	0.000	1.172
12	27350	0.270	0.325 (1)	0.000	0.000	1.204
13	29350	0.598	0.439	0.000	0.378	0.734
14	31350	0.498	0.477	0.000	0.378	0.958
15	33350	0.437	0.526	0.000	0.378	1.203
16	35350	0.414	0.557	0.000	0.378	1.346
17	37350	0.395	0.591	0.000	0.378	1.494
18	39350	0.377	0.640	0.000	0.378	1.699
19	41339	0.365	0.718	0.000	0.397	1.968
20	41340	0.437	0.807	0.000	0.580	1.846

TABLE 2-69. CRACK GROWTH DATA FOR SPECIMEN S3-A-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	3200	0.041	0.044 (1)	0.000	0.000	1.073
3	7200	0.065	0.066	0.000	0.000	1.015
4	11200	0.093	0.106	0.000	0.000	1.140
5	15200	0.143	0.173	0.000	0.000	1.210
6	19200	0.219	0.272	0.000	0.000	1.242
7	21200	0.250	0.306	0.000	0.000	1.224
8	23200	0.375	0.372	0.000	0.206	0.992
9	25200	0.458	0.480	0.000	0.351	1.048
10	27200	0.456	0.590	0.000	0.430	1.293
11	59180	0.433	0.650	0.000	0.450	1.501

TABLE 2-70. CRACK GROWTH DATA FOR SPECIMEN S3-B-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	26000	0.030	0.030	0.000	0.000	1.012
3	34000	0.040	0.041	0.000	0.000	1.035
4	42000	0.068	0.075	0.000	0.000	1.101
5	46000	0.082	0.093 (1)	0.000	0.000	1.134
6	50000	0.110	0.127	0.000	0.000	1.155
7	54000	0.139	0.170	0.000	0.000	1.223
8	58000	0.155	0.213	0.000	0.000	1.374
9	62000	0.167	0.265	0.000	0.000	1.587
10	66000	0.183	0.305	0.000	0.000	1.667
11	70000	0.205	0.365	0.000	0.000	1.780
12	74000	0.252	0.406	0.000	0.000	1.611
13	78000	0.294	0.443	0.000	0.000	1.507
14	82000	0.358	0.498	0.000	0.000	1.391
15	86000	0.412	0.541	0.000	0.000	1.313
16	90000	0.555	0.621	0.000	0.270	1.118
17	92000	0.669	0.700	0.000	0.465	1.046
18	94000	0.742	0.785	0.000	0.580	1.058
19	96000	0.723	0.865	0.000	0.625	1.196
20	133380	0.723	0.865	0.000	0.625	1.196

TABLE 2-71. CRACK GROWTH DATA FOR SPECIMEN S3-B-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	4000	0.026	0.026	0.000	0.000	1.000
3	16000	0.030	0.030	0.000	0.000	1.007
4	28000	0.033	0.033	0.000	0.000	1.011
5	36000	0.040	0.041	0.000	0.000	1.020
6	44000	0.050	0.052	0.000	0.000	1.034
7	52000	0.080	0.086 (1)	0.000	0.000	1.075
8	60000	0.126	0.128	0.000	0.000	1.016
9	64000	0.157	0.164	0.000	0.000	1.045
10	68000	0.183	0.208	0.000	0.000	1.137
11	72000	0.187	0.243	0.000	0.000	1.299
12	76000	0.191	0.272	0.000	0.000	1.424
13	80000	0.214	0.316	0.000	0.000	1.477
14	84000	0.250	0.357	0.000	0.000	1.428
15	88000	0.286	0.399	0.000	0.000	1.395
16	92000	0.354	0.452	0.000	0.000	1.277
17	96000	0.411	0.515	0.000	0.000	1.253
18	100000	0.583	0.582	0.000	0.299	0.999
19	102000	0.759	0.710	0.000	0.534	0.936
20	104000	0.744	0.810	0.000	0.600	1.088
21	106000	1.038	0.970	0.000	0.850	0.925
22	107900	0.784	1.168	0.000	0.900	1.489

TABLE 2-72. CRACK GROWTH DATA FOR SPECIMEN S3-C-

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	10000	0.060	0.060	0.000	0.000	1.000
3	18000	0.152	0.156	0.000	0.000	1.028
4	22000	0.201	0.209	0.000	0.000	1.039
5	26000	0.261	0.275	0.000	0.000	1.052
6	30000	0.325	0.346	0.000	0.000	1.066
7	34000	0.394	0.426 (1)	0.000	0.000	1.081
8	38000	0.474	0.519	0.000	0.000	1.095
9	42000	0.544	0.595	0.000	0.000	1.094
10	46000	0.631	0.683	0.000	0.000	1.083
11	50000	0.743	0.798	0.000	0.000	1.074
12	52000	0.864	0.856	0.000	0.425	0.991
13	54000	-	1.173	0.000	1.135	-
14	141980	-	1.173	0.000	1.135	-

TABLE 2-73. CRACK GROWTH DATA FOR SPECIMEN S3-C-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	4000	0.038	0.039	0.000	0.000	1.024
3	8000	0.046	0.048	0.000	0.000	1.038
4	12000	0.071	0.077	0.000	0.000	1.084
5	16000	0.103	0.118 (1)	0.000	0.000	1.143
6	20000	0.152	0.176	0.000	0.000	1.155
7	24000	0.202	0.234	0.000	0.000	1.160
8	28000	0.252	0.291	0.000	0.000	1.154
9	32000	0.301	0.341	0.000	0.000	1.134
10	36000	0.375	0.414	0.000	0.000	1.104
11	40000	0.455	0.481	0.000	0.000	1.056
12	44000	0.514	0.522	0.000	0.000	1.015
13	48000	0.578	0.562	0.000	0.000	0.972
14	52000	0.654	0.646	0.000	0.000	0.988
15	54000	0.706	0.673	0.000	0.000	0.953
16	56000	0.778	0.705	0.000	0.188	0.906
17	58000	0.831	0.753	0.000	0.325	0.906
18	60000	0.884	0.804	0.000	0.425	0.910
19	62000	0.921	0.878	0.000	0.510	0.953
20	64000	0.979	0.932	0.000	0.599	0.952
21	66000	1.112	1.040	0.000	0.768	0.935
22	68000	1.168	1.135	0.000	0.870	0.972
23	70000	1.062	1.229	0.000	0.870	1.157
24	72000	1.007	1.304	0.000	0.870	1.295
25	74000	0.940	1.445	0.000	0.870	1.535
26	75928	0.860	1.781	0.000	0.870	2.072

TABLE 2-74. CRACK GROWTH DATA FOR SPECIMEN S3-A-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	600	0.027	0.027	0.000	0.000	1.000
3	1400	0.030	0.030	0.000	0.000	1.000
4	2200	0.034	0.034	0.000	0.000	1.000
5	3000	0.039	0.039	0.000	0.000	1.000
6	5400	0.060	0.061	0.000	0.000	1.016
7	6200	0.079	0.081	0.000	0.000	1.025
8	7000	0.100	0.103	0.000	0.000	1.034
9	7800	0.128	0.134 (1)	0.000	0.000	1.047
10	8600	0.155	0.174	0.000	0.000	1.123
11	9400	0.198	0.216	0.000	0.000	1.091
12	9800	0.215	0.241	0.000	0.000	1.121
13	10200	0.246	0.265	0.000	0.000	1.077
14	10600	0.285	0.308	0.000	0.000	1.081
15	10840	0.308	0.333	0.000	0.000	1.080
16	11000	0.329	0.357	0.000	0.113	1.084
17	11080	0.347	0.375	0.000	0.164	1.079
18	11160	0.407	0.402	0.000	0.210	1.012
19	11210	0.420	0.524	0.000	0.350	1.248

TABLE 2-75. CRACK GROWTH DATA FOR SPECIMEN S3-A-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	600	0.027	0.027	0.000	0.000	1.000
3	1400	0.029	0.029	0.000	0.000	1.000
4	1800	0.034	0.035	0.000	0.000	1.015
5	3000	0.045	0.046	0.000	0.000	1.033
6	3800	0.073	0.079	0.000	0.000	1.079
7	4200	0.080	0.087	0.000	0.000	1.090
8	4600	0.087	0.096	0.000	0.000	1.102
9	5400	0.112	0.128 (1)	0.000	0.000	1.143
10	6200	0.151	0.201	0.000	0.000	1.331
11	6600	0.165	0.227	0.000	0.000	1.376
12	7000	0.190	0.250	0.000	0.000	1.316
13	7400	0.218	0.283	0.000	0.000	1.298
14	7800	0.239	0.329	0.000	0.000	1.377
15	8000	0.275	0.352	0.000	0.000	1.282
16	8160	0.294	0.364	0.000	0.000	1.236
17	8240	0.316	0.375	0.000	0.055	1.187
18	8320	0.349	0.388	0.000	0.172	1.113
19	8400	0.389	0.427	0.000	0.254	1.098
20	8480	0.402	0.465	0.000	0.292	1.158
21	8558	0.439	0.590	0.000	0.414	1.345

TABLE 2-76. CRACK GROWTH DATA FOR SPECIMEN S3-B-3

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	5800	0.051	0.053	0.000	0.000	1.043
3	6600	0.056	0.059	0.000	0.000	1.051
4	7400	0.060	0.063	0.000	0.000	1.058
5	9000	0.068	0.073	0.000	0.000	1.071
6	10200	0.076	0.082	0.000	0.000	1.084
7	11400	0.091	0.101	0.000	0.000	1.109
8	12600	0.106	0.120	0.000	0.000	1.134
9	13800	0.123	0.143	0.000	0.000	1.162
10	15000	0.137	0.162	0.000	0.000	1.185
11	16200	0.178	0.223	0.000	0.000	1.252
12	17000	0.200	0.258	0.000	0.000	1.288
13	18200	0.224	0.297	0.000	0.000	1.328
14	19000	0.260	0.361	0.000	0.000	1.387
15	19800	0.283	0.403	0.000	0.000	1.425
16	20600	0.309	0.454	0.000	0.000	1.468
17	21012	0.332	0.500 (1)	0.000	0.000	1.506
18	21800	0.374	0.568	0.000	0.000	1.519
19	22200	0.420	0.644	0.000	0.000	1.533
20	22440	0.468	0.665	0.000	0.000	1.421
21	22520	0.496	0.677	0.000	0.101	1.366
22	22600	0.556	0.707	0.000	0.335	1.271
23	22680	0.597	0.739	0.000	0.422	1.238
24	22760	0.615	0.827	0.000	0.500	1.344
25	22840	0.613	1.000	0.000	0.600	1.633
26	30231	0.613	1.000	0.000	0.600	1.633

TABLE 2-77. CRACK GROWTH DATA FOR SPECIMEN S3-B-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	3900	0.040	0.041	0.000	0.000	1.014
3	4700	0.045	0.046	0.000	0.000	1.019
4	5500	0.051	0.052	0.000	0.000	1.025
5	7100	0.061	0.063	0.000	0.000	1.034
6	8700	0.076	0.080	0.000	0.000	1.048
7	10700	0.092	0.098	0.000	0.000	1.064
8	12300	0.117	0.127	0.000	0.000	1.087
9	13900	0.140	0.155	0.000	0.000	1.109
10	15500	0.177	0.203	0.000	0.000	1.144
11	16700	0.196	0.228	0.000	0.000	1.162
12	17500	0.210	0.247	0.000	0.000	1.176
13	18300	0.233	0.279	0.000	0.000	1.197
14	19100	0.257	0.314	0.000	0.000	1.220
15	19900	0.281	0.349	0.000	0.000	1.243
16	20700	0.309	0.392	0.000	0.000	1.269
17	21100	0.339	0.440	0.000	0.000	1.298
18	21900	0.401	0.544	0.000	0.000	1.357
19	22300	0.436	0.606 (1)	0.000	0.000	1.390
20	22460	0.486	0.635	0.000	0.000	1.307
21	22540	0.497	0.646	0.000	0.071	1.300
22	22620	0.510	0.660	0.000	0.163	1.295
23	22700	0.533	0.674	0.000	0.253	1.265
24	22780	0.562	0.687	0.000	0.327	1.223
25	22860	0.587	0.703	0.000	0.380	1.197
26	22940	0.608	0.755	0.000	0.440	1.242
27	23020	0.633	0.786	0.000	0.491	1.242
28	23097	0.714	0.842	0.000	0.608	1.179

TABLE 2-78. CRACK GROWTH DATA FOR SPECIMEN S3-C-3

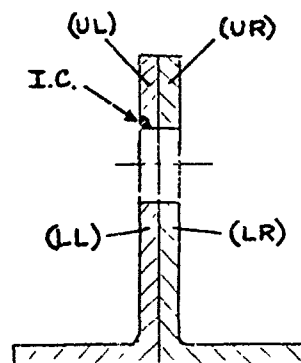
LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	200	0.026	0.026	0.000	0.000	1.000
3	4200	0.060	0.065	0.000	0.000	1.046
4	8200	0.155	0.182 (1)	0.000	0.000	1.171
5	10200	0.223	0.272	0.000	0.000	1.221
6	11400	0.298	0.352	0.000	0.000	1.181
7	12600	0.348	0.408	0.000	0.000	1.171
8	13400	0.430	0.497	0.000	0.000	1.157
9	14200	0.586	0.659	0.000	0.000	1.125
10	14400	0.623	0.695	0.000	0.000	1.116
11	14480	0.683	0.738	0.000	0.000	1.081
12	14557	0.715	0.775	0.000	0.000	1.084

TABLE 2-79. CRACK GROWTH DATA FOR SPECIMEN S3-C-4

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	2600	0.046	0.047	0.000	0.000	1.022
3	6600	0.117	0.128	0.000	0.000	1.097
4	9000	0.175	0.203	0.000	0.000	1.158
5	10200	0.211	0.252 (1)	0.000	0.000	1.196
6	11400	0.259	0.326	0.000	0.000	1.260
7	12600	0.324	0.426	0.000	0.000	1.314
8	13400	0.379	0.507	0.000	0.000	1.338
9	13800	0.435	0.591	0.000	0.000	1.358
10	14200	0.525	0.695	0.000	0.000	1.323
11	14440	0.586	0.753	0.000	0.000	1.286
12	14520	0.627	0.788	0.000	0.000	1.257
13	14600	0.689	0.825	0.000	0.000	1.197
14	14680	0.719	0.845	0.000	0.000	1.175
15	14713	0.726	0.860	0.000	0.000	1.185

TABLE 2-80. CRACK GROWTH DATA FOR SPECIMEN R2-E-1

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	960	0.036	0.041	0.000	0.000	1.127
3	1360	0.041	0.049	0.000	0.000	1.184
4	1760	0.046	0.057	0.000	0.000	1.242
5	2160	0.056	0.076 (1)	0.000	0.000	1.357
6	2560	0.065	0.087	0.000	0.000	1.345
7	2960	0.079	0.105	0.000	0.000	1.327
8	4160	0.090	0.118	0.000	0.000	1.313
9	4960	0.113	0.145	0.000	0.000	1.283
10	5760	0.129	0.163	0.000	0.000	1.261
11	6560	0.154	0.189	0.000	0.000	1.226
12	7360	0.181	0.215	0.000	0.000	1.188
13	8160	0.212	0.239	0.000	0.000	1.127
14	9760	0.269	0.287	0.000	0.000	1.067
15	11360	0.325	0.355	0.130	0.000	1.091
16	12160	0.409	0.486	0.304	0.000	1.188
17	13360	0.574	0.612	0.526	0.000	1.414
18	14560	0.735	0.752	0.664	0.000	1.031
19	14800	0.757	0.769	0.686	0.000	1.015
20	15120	0.807	0.792	0.736	0.000	0.982
21	15360	0.849	0.880	0.789	0.000	1.037
22	15520	0.900	0.905	0.840	0.000	1.006
23	15680	0.942	1.101	0.900	0.000	1.168
24	15840	0.999	1.175	0.960	0.000	1.176
25	15920	1.029	1.379	1.000	0.000	1.340
(2) 26	15960	1.126	-	1.126	0.000	-



SCHEMATIC OF LUG CROSS SECTION:

UL - UPPER LEFT
(PRECRACKED)

LL - LOWER LEFT

UR - UPPER RIGHT

LR - LOWER RIGHT

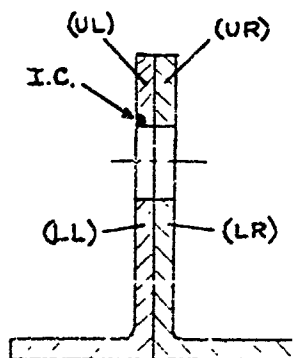
TABLE 2-80. CRACK GROWTH DATA FOR SPECIMEN R2-E-1 (CONT'D)

LINE NO.	N	LOWER c_{LL} (IN.)	LEFT a_{LL} (IN.)	UPPER c_{UR} (IN.)	RIGHT a_{UR} (IN.)	LOWER c_{LR} (IN.)	RIGHT a_{LR} (IN.)
(3) 27	33760	0.000	0.000	0.000	0.000	0.000	0.000
28	34470	0.000	-	0.051	-	0.000	-
29	34870	0.043	-	0.063	-	0.000	-
30	35270	0.069	-	0.073	-	0.000	-
31	35670	0.099	-	0.082	-	0.000	-
32	36070	0.124	-	0.094	-	0.000	-
33	36150	0.400	-	0.097	-	0.000	-
34	36230	0.500	-	0.100	-	0.000	-
35	36310	0.612	-	0.104	-	0.000	-
36	36390	0.708	-	0.108	-	0.000	-
37	36470	0.845	-	0.295	-	0.000	-
38	36550	0.985	-	0.606	-	0.000	-
39	36630	1.082	-	1.071	-	0.000	-
(4) 40	36682	1.195	-	1.202	-	0.000	-
(5) 41	36695	2.350	-	-	-	-	-

- (2) Upper left ligament fails, N = 15,960
 (3) Loads increased 16 percent, N = 33,760
 (4) Upper right ligament fails, N = 36,682
 (5) Specimen fails, N = 36,695

TABLE 2-81. CRACK GROWTH DATA FOR SPECIMEN R2-E-2

LINE NO.	N	c (IN.)	a (IN.)	cB (IN.)	aB (IN.)	a/c
1	0	0.025	0.025	0.000	0.000	1.000
2	600	0.038	0.038	0.000	0.000	1.000
3	1000	0.060	0.060	0.000	0.000	1.000
4	1400	0.077	0.077	0.000	0.000	1.000
5	1800	0.089	0.089	0.000	0.000	1.000
6	2200	0.095	0.095	0.000	0.000	1.000
7	2600	0.114	0.114	0.000	0.000	1.000
8	3000	0.124	0.124 (1)	0.000	0.000	1.000
9	3400	0.149	0.149	0.000	0.000	1.000
10	3800	0.175	0.175	0.000	0.000	1.000
11	4120	0.183	0.183	0.000	0.000	1.000
12	4520	0.203	0.203	0.000	0.000	1.000
13	4920	0.225	0.225	0.000	0.000	1.000
14	5320	0.244	0.244	0.000	0.000	1.000
15	5720	0.268	0.268	0.000	0.000	1.000
16	6120	0.293	0.293	0.000	0.000	1.000
17	6520	0.321	0.323	0.000	0.000	1.000
18	6920	0.347	0.388	0.190	0.000	1.119
19	7320	0.380	0.411	0.233	0.000	1.082
20	7720	0.410	0.433	0.271	0.000	1.055
21	7800	0.416	0.437	0.278	0.000	1.050
22	8120	0.442	0.481	0.326	0.000	1.089
23	8520	0.469	0.544	0.376	0.000	1.159
24	8920	0.501	0.651	0.434	0.000	1.298
25	9320	0.528	0.813	0.484	0.000	1.540
26	9720	0.560	1.329	0.543	0.000	2.373
27	10120	0.595	1.563	0.582	0.000	2.627
28	10520	0.623	1.821	0.613	0.000	2.923
29	10920	0.668	2.661	0.663	0.000	3.984
30	11320	0.707	-	0.707	0.000	-
31	11720	0.756	-	0.756	0.000	-
32	12120	0.801	-	0.801	0.000	-
33	12520	0.873	-	0.873	0.000	-
34	12920	0.953	-	0.953	0.000	-
(2) 35	12959	1.150	-	1.150	0.000	-



SCHEMATIC OF LUG CROSS SECTION:

UL - UPPER LEFT
(PRECRACKED)
LL - LOWER LEFT
UR - UPPER RIGHT
LR - LOWER RIGHT

TABLE 2-81. CRACK GROWTH DATA FOR SPECIMEN R2-E-2 (CONT'D)

LINE NO.	N	LOWER c_{LL} (IN.)	LEFT a_{LL} (IN.)	UPPER c_{UR} (IN.)	RIGHT a_{UR} (IN.)	LOWER c_{LR} (IN.)	RIGHT a_{LR} (IN.)
36	28760	0.088	0.088	-	-	-	-
37	29160	0.121	↑ THRU CRACK ↓	-	-	-	-
38	29240	0.143		-	-	-	-
39	29320	0.164		-	-	-	-
40	29400	0.186		-	-	-	-
41	29480	0.307		-	-	-	-
42	29640	0.422		-	-	-	-
43	30040	0.698		-	-	-	-
44	30440	0.919		-	-	-	-
45	30840	1.124		-	-	-	-
46	31240	1.278		-	-	0.000	-
47	31640	1.363		-	-	0.085	-
48	32040	1.442		-	-	0.102	-
49	32440	1.512		0.000	0.000	0.118	0.157
50	32840	1.565		0.058	0.060	0.141	0.177
51	33240	1.618		0.074	0.076	0.168	0.200
52	33640	1.671		0.096	0.096	0.245	0.233
53	33880	1.709		0.139	0.139	0.322	0.292
54	33960	1.722		0.264	0.186	0.455	0.455
55	34040	1.735	1.735	0.304	0.203	0.490	0.490
(3) 56	34079	-	-	-	-	-	-

(2) Upper left ligament fails, N = 12,959

(3) Specimen fails, N = 34,079

APPENDIX A

This appendix contains the tables that fully describe the block spectrum loading and flight-by-flight spectrum loading sequences used in the test program.

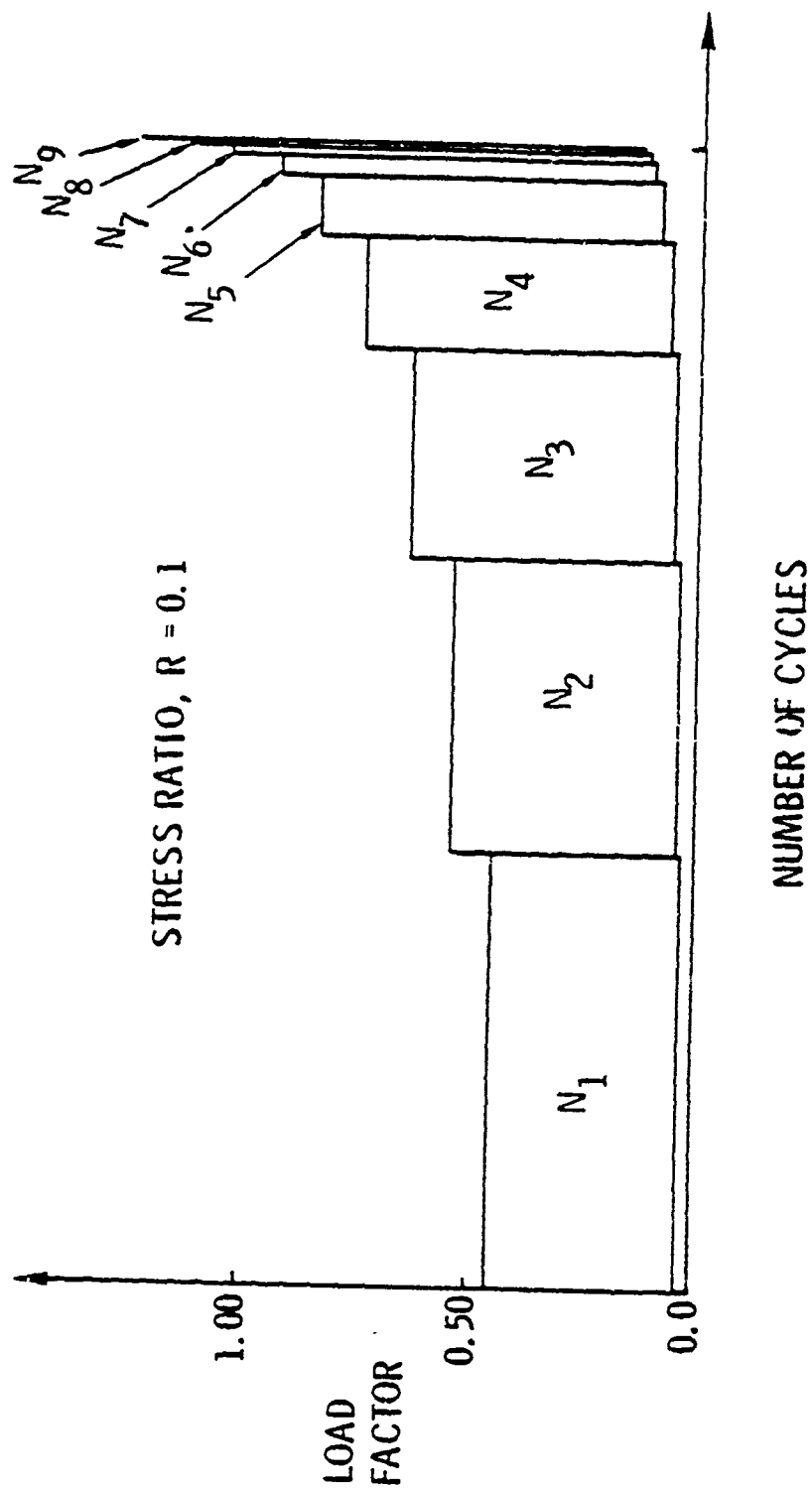


Figure A-1. Schematic of Block Spectrum Loading

TABLE A-1. DETAILS OF BLOCK SPECTRUM LOADING OF GROUP I TESTS (ONE BLOCK)

LOAD FACTOR		SYMBOL	LOW LOAD			HIGH LOAD		
SYMBOL	VALUE		CORNER CRACK (CYCLES)	THRU CRACK (CYCLES)	FREQUENCY (Hz)	CORNER CRACK (CYCLES)	THRU CRACK (CYCLES)	FREQUENCY (Hz)
σ_1	0.45	N_1	2850	950	20	105	35	10
σ_2	0.55	N_2	1950	650	20	75	25	10
σ_3	0.65	N_3	1350	450	20	45	15	10
σ_4	0.75	N_4	750	250	10	30	10	10
σ_5	0.85	N_5	408	136	10	15	5	10
σ_6	0.95	N_6	132	44	10	12	4	10
σ_7	1.05	N_7	45	15	10	9	3	10
σ_8	1.15	N_8	12	4	10	6	2	10
σ_9	1.25	N_9	3	1	10	3	1	10

NOTE:

UNIT LOAD FACTOR = 6 KSI FOR ALUMINUM LUGS }
 = 14 KSI FOR STEEL LUGS } LOW LOAD
 = 15 KSI FOR ALUMINUM LUGS - HIGH LOAD

SPECTRUM MAX. LOAD = 7.5 KSI FOR ALUMINUM LUGS }
 = 17.5 KSI FOR STEEL LUGS } LOW LOAD
 = 18.75 KSI FOR ALUMINUM LUGS - HIGH LOAD

TABLE A-2. MISSIONS DEFINITION FOR CARGO SPECTRUM

	MAX STRESS KSI	MIN STRESS KSI	N/FLT
MIS 0	19.108	-1.184	1.00
MIS 1	18.083	-1.808	1.00
	4.423	2.423	1998.00
	13.492	9.492	193.00
	15.106	9.106	24.00
	15.863	7.863	4.00
	16.909	5.572	1.00
	18.083	2.602	.10 *
MIS 2	17.987	-1.799	1.00
	5.080	3.080	2273.00
	13.824	9.824	204.00
	15.189	9.189	25.00
	15.908	7.908	5.00
	16.899	5.494	1.00
	17.987	2.384	.10
MIS 3	16.751	-1.675	1.00
	4.888	2.888	2891.00
	14.139	10.139	227.00
	15.304	9.304	25.00
	15.918	7.918	4.00
	16.751	5.302	1.00
MIS 4	16.695	-1.669	1.00
	6.157	4.157	2827.00
	14.755	10.755	209.00
	15.562	9.562	23.00
	16.065	8.065	4.00
	16.695	5.536	1.00
MIS 5	17.952	-1.795	1.00
	4.737	2.737	2099.00
	14.329	10.329	175.00
	15.420	9.420	21.00
	16.101	8.101	4.00
	16.936	5.964	1.00
	17.952	2.888	.10

* N/FLT = 0.1-Means the application of this load once in ten occurrences of this mission (refer to sequence of missions table).

TABLE A-2. MISSIONS DEFINITION FOR CARGO SPECTRUM (CONTINUED)

	MAX STRESS KSI	MIN STRESS KSI	N/FLT
MIS 6	16.778	-1.678	1.00
	6.313	4.313	3082.00
	15.372	11.372	204.00
	15.904	9.904	21.00
	16.321	8.321	3.00
	16.778	6.050	1.00
MIS 7	17.861	-1.786	1.00
	5.628	3.628	2100.00
	14.634	10.634	164.00
	15.592	9.592	19.00
	16.232	8.232	3.00
	16.916	6.358	1.00
	17.861	3.335	.10
MIS 8	17.518	-1.752	1.00
	6.414	4.414	2714.00
	15.401	11.401	187.00
	15.941	9.941	19.00
	16.373	8.373	3.00
	16.820	6.253	1.00
	17.518	2.991	.10
MIS 9	17.761	.776	1.00
	6.544	4.544	2260.00
	15.197	11.197	161.00
	15.858	9.858	17.00
	16.406	8.406	2.00
	16.913	6.694	1.00
	17.761	3.686	.10
MIS 10	17.001	-1.700	1.00
	6.806	4.806	1989.00
	15.273	11.273	151.00
	15.918	9.918	18.00
	16.475	8.475	2.00
	17.001	6.760	1.00

TABLE A-2. MISSIONS DEFINITION FOR CARGO SPECTRUM (CONTINUED)

	MAX STRESS KSI	MIN STRESS KSI	N/FLT
MIS 11			
	14.546	-1.808	1.00
	15.523	.000	1.00
	15.523	.000	1.00
	15.523	.000	1.00
	18.083	.000	1.00
	15.523	.000	1.00
	15.523	.000	1.00
	15.523	.000	1.00
	16.191	.000	1.00
	16.191	.000	1.00
	3.774	1.774	5418.00
	12.842	3.842	419.00
	14.546	8.546	51.00
	15.523	7.523	9.00
	16.191	6.191	2.00
	16.913	4.425	1.00
	18.083	1.151	.10
MIS 12			
	15.650	-1.849	1.00
	15.650	.000	1.00
	15.650	.000	1.00
	15.650	.000	1.00
	18.487	-1.849	1.00
	15.650	.000	1.00
	16.323	.000	1.00
	16.323	.000	1.00
	16.323	.000	1.00
	3.848	1.848	6512.00
	13.112	9.112	556.00
	14.771	8.771	69.00
	15.650	7.650	12.00
	16.323	6.323	5.00
	17.267	4.096	1.00
	18.487	.919	.10

TABLE A-3. ONE PASS OF SEQUENCE OF MISSIONS OF CARGO SPECTRUM

SEQUENCE NO.	MISSION NO.	SEQUENCE NO.	MISSION NO.	SEQUENCE NO.	MISSION NO.
1	7	41	2	81	7
2	8	42	5	82	12
3	1	43	12	83	11
4	2	44	7	84	9
5	12*	45	2*	85	7
6	7	46	8	86	8*
7	5	47	1	87	2
8	11	48	9	88	5
9	8	49	4	89	1
10	9	50	7	90	12
11	7	51	12	91	7
12	1	52	8	92	10
13	12	53	11	93	8
14	2	54	5	94	11
15	7*	55	7*	95	3
16	8	56	1	96	7*
17	11	57	2	97	2
18	5	58	12	98	1
19	1	59	8	99	12
20	7	60	7	100	5
21	12	61	0	101	7
22	4	62	3	102	8
23	2	63	5	103	9
24	7	64	1	104	2
25	8*	65	7	105	7
26	6	66	12*	106	11*
27	11	67	8	107	12
28	1	68	2	108	1
29	12	69	11	109	8
30	7	70	9	110	5
31	8	71	7	111	7
32	2	72	1	112	2
33	5	73	12	113	12
34	7	74	8	114	8
35	1*	75	7	115	7
36	9	76	5*	116	9*
37	12	77	2	117	1
38	8	78	4	118	11
39	11	79	1	119	4
40	7	80	8	120	12

*Missions with application of once in ten occurrences loads (i.e., loads with $N/FLT = 0.1$)

TABLE A-4. STRESSES AND FREQUENCIES FOR 80-FLIGHT FIGHTER SPECTRUM

LOAD NO.	MAX. STRESS, KSI	MIN. STRESS, KSI	NO. PER 80 FLIGHTS	FREQUENCY Hz	
1	20.000	2.778	1	1.0	LOADS FOR 40 SEVERE FLIGHTS
2	18.611	2.778	1	1.0	
3	18.056	2.778	1	1.5	
4	17.722	2.778	1	1.5	
5	17.333	2.778	2	1.5	
6	16.944	2.778	2	2.0	
7	16.611	2.778	3	2.0	
8	16.167	2.778	4	2.0	
9	15.722	2.778	6	3.0	
10	15.278	2.778	10	3.0	
11	14.722	2.778	16	3.0	
12	14.167	2.778	25	4.0	
13	13.472	2.778	30	4.0	
14	12.778	2.778	40	4.0	
15	12.028	2.778	58	4.0	
16	11.333	2.778	80	5.0	
17	10.361	2.778	120	6.0	
18	9.389	2.778	170	7.0	
19	8.333	2.778	230	8.0	
20	18.889	2.778	1	1.0	LOADS FOR 40 TYPICAL FLIGHTS
21	17.222	2.778	1	1.5	
22	16.417	2.778	1	2.0	
23	15.889	2.778	1	2.0	
24	15.333	2.778	2	3.0	
25	14.861	2.778	2	3.0	
26	14.444	2.778	3	3.0	
27	13.889	2.778	4	4.0	
28	13.278	2.778	6	4.0	
29	12.556	2.778	10	4.0	
30	11.806	2.778	16	4.0	
31	10.889	2.778	25	5.0	
32	10.083	2.778	30	6.0	
33	9.361	2.778	40	7.0	
34	8.750	2.778	58	8.0	
35	8.111	2.778	80	8.0	

TABLE A-5. LOADING SEQUENCE OF 80-FLIGHT FIGHTER SPECTRUM

FLIGHT NO.	NO. OF CYCLES	LOAD NUMBERS																																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
1	20	19	14	17	18	14	13	4	19	18	19	16	3	18	19	19	19	18	18	18	19	18	17	18	19	18	18	18	18	18	18	18	18	18	18	19
2	20	19	19	6	18	18	19	16	14	19	17	19	17	19	18	17	19	18	17	19	16	11	17	18	19	18	18	18	18	18	18	18	18	18	18	18
3	7	34	31	35	31	35	32	35																												
4	7	35	32	31	31	35	32	29																												
5	7	32	34	33	34	35	35	34																												
6	7	29	32	34	33	33	35	31																												
7	7	35	33	35	35	35	33	35																												
8	20	7	19	18	15	18	18	18	12	17	13	19	15	18	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	
9	20	15	18	18	19	15	19	19	17	19	19	19	15	11	9	19	15	11	9	19	15	17	18	19	19	19	19	19	19	19	19	19	19	19	19	19
10	20	18	19	13	16	18	18	19	13	19	19	19	18	19	14	17	14	17	14	17	14	17	14	17	14	17	14	17	14	17	14	17	14	17	14	17
11	7	32	28	30	35	34	35	34																												
12	20	17	18	19	18	14	12	17	15	19	19	19	19	18	12	19	19	18	12	19	19	19	18	12	19	18	18	18	18	18	18	18	18	18	18	18
13	20	17	19	17	18	16	18	9	16	5	17	12	2	18	17	17	17	12	19	16	14	19	17	12	19	16	16	16	16	16	16	16	16	16	16	19
14	20	19	18	15	19	12	14	18	19	18	19	16	19	19	12	18	19	12	18	19	19	19	12	18	19	19	17	19	8							
15	20	13	15	16	15	16	18	12	17	19	19	16	18	19	16	18	19	16	18	19	16	18	19	16	18	19	18	19	16	19						
16	20	18	19	17	19	16	19	12	17	12	17	19	12	17	12	17	19	14	19	11	19	14	19	11	19	18	19	16	19							
17	7	34	35	35	33	33	33	34																												
18	20	19	10	19	7	15	14	18	19	9	19	15	16	17	16	17	15	16	17	15	16	17	15	16	17	14	15									
19	20	15	19	18	19	16	13	19	11	17	18	17	15	13	16	18	19	13	16	18	19	13	16	18	19	13	18	19	13							
20	7	32	32	35	33	35	34	32																												
21	20	17	19	18	19	17	13	17	17	12	11	17	14	19	19	19	12	19	19	12	19	19	12	19	19	14	18									
22	7	35	35	25	31	31	34	35																												
23	20	19	19	19	19	17	18	18	18	19	14	19	14	17	16	18	16	18	16	18	16	18	16	18	16	18	12	19	12	19	12	19	12	19	17	

TABLE A-5. LOADING SEQUENCE OF 80-FLIGHT FIGHTER SPECTRUM (CONTINUED)

FLIGHT NO.	NO. OF CYCLES	LOAD NUMBERS																																				
		21	34	34	34	34	26	32	19	17	15	18	17	19	16	18	19	17	18	19	14	17	14	19	18	19	16	18	19	17	15	18	17	19	16	18	19	
24	7	21	34	34	34	34	26	32																														
25	20	15	19	15	16	19	18	15	19	17	15	18	17	19	16	16	18	19	17	18	19	17	18	19														
26	7	34	35	34	35	31	33	24																														
27	20	18	18	16	19	18	18	18	19	16	15	13	17	19	19	17	19	14	17	14	17	14	19															
28	7	30	34	32	35	35	32	33																														
29	20	17	14	14	19	17	18	16	19	10	18	18	18	17	19	18	19	18	14	12	11																	
30	20	18	19	15	17	16	18	19	19	18	16	18	15	8	19	15	18	19	9	17	18																	
31	20	19	19	16	18	19	17	19	11	18	16	18	17	16	16	9	18	14	18	15	16																	
32	7	34	35	33	30	34	31	35																														
33	7	35	32	31	35	32	35	34																														
34	20	14	16	14	13	10	12	18	17	16	19	19	19	19	19	18	16	15	13	8	19																	
35	20	18	13	15	18	13	19	16	19	16	18	14	11	13	17	14	13	19	17	19	19																	
36	7	23	35	35	35	34	27	35																														
37	7	33	29	33	35	35	34	34																														
38	7	31	30	31	33	32	29	35																														
39	20	19	19	17	19	17	17	18	11	18	18	19	14	18	17	1	18	14	19	18	16																	
40	7	34	34	33	35	34	31	34																														
41	7	33	31	34	34	33	34	31	.																													
42	20	17	19	17	19	17	18	16	13	19	10	17	19	17	19	17	17	18	17	18	19																	
43	7	34	34	33	28	35	35	33																														
44	20	16	19	18	5	18	18	18	15	17	10	19	19	19	19	15	19	16	18	17	16																	
45	7	35	33	33	34	35	26	30																														
46	20	18	17	18	18	17	15	18	15	19	16	19	18	18	18	19	19	19	18	19	18																	

TABLE A-5. LOADING SEQUENCE OF 80-FLIGHT FIGHTER SPECTRUM (CONTINUED)

FLIGHT NO.	NO. OF CYCLES	LOAD NUMBERS																			
		25	35	31	35	32	29	33													
47	7																				
48	7	32	35	34	32	31	34	35													
49	7	34	33	33	35	35	32	28													
50	7	35	35	34	33	30	32	31													
51	7	29	34	33	35	20	33	32													
52	20	17	19	15	17	18	18	14	19	18	17	18	13	13	15	10	18	14	16	17	19
53	20	18	17	15	17	17	18	15	18	17	19	17	19	18	17	16	18	17	15	17	11
54	20	18	16	15	17	13	16	6	19	19	18	15	19	10	16	17	16	19	13	14	17
55	7	33	34	35	34	34	34	31													
56	7	35	26	33	32	31	35	32													
57	20	15	16	19	18	14	16	17	18	19	17	19	19	18	17	17	16	12	11	17	17
58	20	16	18	17	16	18	12	15	13	19	18	16	15	16	16	19	18	18	19	18	
59	20	19	18	16	18	15	19	18	18	12	17	19	17	12	15	19	19	17	19	19	
60	20	18	19	13	18	19	19	15	18	17	15	19	16	19	17	16	9	14	17	15	19
61	20	17	16	18	14	18	13	13	19	18	17	18	17	17	16	19	19	14	13	19	19
62	20	16	17	18	18	17	17	15	18	19	17	19	19	18	18	15	17	18	16	17	10
63	20	19	16	19	7	19	19	19	19	19	16	13	18	16	18	19	19	16	18	18	19
64	20	19	17	19	15	17	19	18	16	15	16	15	18	14	12	18	19	19	19	14	19
65	7	35	28	28	30	33	34	35													
66	7	35	34	30	34	33	27	30													
67	20	12	19	17	19	17	13	14	18	18	15	19	12	18	13	19	18	18	10	16	18
68	7	34	34	35	34	34	30	31													
69	7	29	35	35	32	34	27	33													

TABLE A-5. LOADING SEQUENCE OF 80-FLIGHT FIGHTER SPECTRUM (CONTINUED)

FLIGHT NO.	NO. OF CYCLES	LOAD NUMBERS															
		16	12	13	14	18	17	19	19	11	13	15	19	19	19	18	17
70	20	16	12	13	14	18	17	19	19	11	13	15	19	19	19	18	18
71	20	19	18	19	19	15	18	14	19	17	19	14	19	15	19	16	19
72	7	35	30	35	31	29	30	31									12
73	7	35	35	35	29	31	35	35									
74	7	35	35	34	32	35	29	31									
75	7	33	35	33	34	33	35	32									
76	7	32	34	30	30	35	35	34									
77	7	34	35	32	33	35	35	34									
78	20	19	17	19	18	17	19	17	16	16	19	18	15	19	18	17	19
79	7	33	34	22	35	24	28	27									
80	7	33	30	32	30	35	32	33									